



Technical Information:

Printer Driver for Universal Print White Paper

Document Version 4.5.0

PCL

PS

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Version History:**PCL**

Version	Issue Date	Revisions
1.0.0	Oct. 1, 2008	Initial release
1.0.1	Oct. 10, 2008	Added support for Citrix Presentation Server and MetaFrame to the “Operating Systems > Specifications” section.
1.1.0	Nov. 26, 2008	Added supported SNMP version to “Architecture” section. Added supported ports to “Supported Ports > Specifications” section. Added supported models to the “Models > Specifications” section. Added “Install Method” section.
1.2.0.	Feb. 18, 2009	Added Windows Server 2008 and Novell Netware to the Operating Systems table. Added a supported port to “Supported Ports > Specifications” section. Added information about the SNMP community name to the “Supported Ports > Specifications” section. Added “Languages section > Specifications” section
1.3.0.	Apr. 14, 2009	Added some new port types to the “Supported Ports > Specifications” section. Added “PrinterSwitcher” section. Added “Notes” section.
1.4.0	Jun. 16, 2009	Added supported models to the “Models > Specifications” section.
1.5.0	Sep. 25, 2009	Renamed “Models” section to “Supported Models”. The PCL6 Driver for Universal Print version is now v.2.3.0.0. (No new functions or supported models have been added)
1.6.0	Nov. 13, 2009	Added Windows 7/2008 R2 to the “Supported Operating Systems > Specifications” section. Added the “Generic Model” section. Added Windows 7/2008 R2 to the “Supported Operating Systems > Specifications > PrinterSwitcher ”.
1.7.0	Feb. 19, 2010	Added supported models to the “Supported Models > Specifications” section. Added supported models to the “Generic Model” section.
1.8.0	May 19, 2010	The PCL6 Driver for Universal Print version is now v. 3.2.0.0. (No new functions or supported models have been added.

Version	Issue Date	Revisions
1.9.0	Sept. 13, 2010	<p>Added Aficio SP C430DN/C431DN to the “Supported Models > Specifications” section.</p> <p>Added Aficio SP C430DN/C431DN to the “Generic Model” section.</p> <p>Modified the “Upgrading the driver” procedure.</p> <p>Modified the “Upgrading the driver” section.</p> <p>Added “Uninstalling the driver” section.</p> <p>Added “Disabling bi-directional communication” section.</p>
2.0.0	Mar. 30th, 2011	<p>This document has been reclassified a “White Paper” instead of a “Technical Information document”.</p> <p>The PCL6 Driver for Universal Print version is now ver.3.5.0.0.</p> <p>Added the following models as being fully supported or supported as “Generic model”:</p> <p>Aficio MP C4501/C5501/C4501A/C5501A</p> <p>Aficio MP C3001/C3501</p> <p>Aficio MP C300/C300SR/C400/C400SR</p> <p>Aficio MP C2051/C2551/C320DN</p> <p>Added a “Scripting” section.</p> <p>Added a “Point and Print” installation procedure.</p> <p>Added a “Web Point and Print” installation procedure.</p> <p>Added a “Plug and Play” installation procedure.</p> <p>Added a reference to iPrint documentation.</p> <p>Explained that the use of the PCL6 DRIVER FOR UNIVERSAL PRINT with a server cluster is supported.</p> <p>Explained that “Printer Driver Isolation” is supported.</p>
2.1.0	June 14th, 2011	<ul style="list-style-type: none"> - Added Aficio MP 201 to the “Supported Models > Specifications” section. - Added Aficio MP 201 to the “Generic Model” section. - Added information about the way the driver retrieves an SNMP community name from a Novell iPrint server. - General corrections throughout.

Version	Issue Date	Revisions
2.2.0	6/28/2012	<ul style="list-style-type: none"> - Remove Windows 2000 from support OS - Added information about "Microsoft Cluster Service and Failover Cluster". - Added the information about Citrix environment. - Added some models to the "Supported Models. Added some models to the "Generic Model" section. - Added information about "GUI based remote installation and queue creation". - Added information for the Package Awareness to the point and print section. - Added a "Printer Driver Editor" overview section <ul style="list-style-type: none"> - Added a "Printer Driver Editor" specifications section - Support for the following models: <ul style="list-style-type: none"> - Aficio SP 4400S/4410SF/4420SF - Aficio SP 3500SF/3510SF/3500N/3510DN
2.3.0	10/05/2012	Support for the following models: <ul style="list-style-type: none"> - Aficio SP C830DN/C831DN - Aficio SP 8300DN
2.4.0	February 1, 2013	<ul style="list-style-type: none"> - Added support for the following models: <ul style="list-style-type: none"> - MP 2001/2501 - Aficio SP C730DN - Added support for Windows 8 and Windows Server 2012 to the "Supported Operating Systems > Specifications" section. - Added information about Server Core. - Deleted the Plug and Play installation procedure. - Removed support for Citrix Presentation Server 4.
4.0.0	June 28, 2013	<ul style="list-style-type: none"> - The PCL6 Driver for Universal Print version is now v4.0.0.0.
4.1.0	September 27, 2013	<ul style="list-style-type: none"> - Added support for the following models: <ul style="list-style-type: none"> - MP 2553/3053/3353 - Pro 8100S/8110S/8120S - Added newly supported languages to the "1-7. Supported Languages" section.

Version	Issue Date	Revisions
4.2.0	December 16, 2013	<ul style="list-style-type: none"> – Added support for the following models: <ul style="list-style-type: none"> – MP C2003(Z)/C2503(Z) – Added support for Windows 8.1 and Windows Server 2012 R2 to the "1-3-1. List of Supported Operating Systems" section. – Added support for Printer Driver Packager NX v1.00.02 or later to the "4. Driver Customization" section and the "9-4.Printer Driver Packager NX" section. – Added a note regarding driver names when installing a driver to the "5-1-2.Installation and Queue Creation Locally" section. – Added details about the behavior of bidirectional communication with user privileges to the "5-3-3.When Bidirectional Communication Will Occur" section. – Added support for version management to the "5-6.Version Management Support" section. – Added the support policy for the "New Driver" button to the "6-2.Upgrading the Universal Driver from an Older Version (Excluding v1.0.0.0 - v3.2.0.0) to a Later Version" section. – Added support for the new UI to the "8-2.One Click Preset Icons" section. – Added details about the User ID for the Windows Login Name to the "8-3.Job Setup" section. – Added support for the Delta Row compression for Generic Model to the "9-1-8.Delta Row compression for Generic Model" section.

Version	Issue Date	Revisions
4.3.0	March 20, 2014	<ul style="list-style-type: none"> – Added support for the following models: <ul style="list-style-type: none"> – MP C401/C401SR – SP C250SF/C252SF – SP C250DN/C252DN – Added “Japanese” to the “1-7. Supported Languages” section. – Updated the list of operating systems in the Windows Catalog for the PCL6 Driver for Universal Print in the “2-1. WHQL and the Windows Catalog” section. – Added details about New Driver button support for do-it-yourself customized drivers to the “6-2-2. New Driver button support for do-it-yourself customized drivers” section. – Added details about the “8-4. Gray Reproduction” setting to the “Gray Reproduction” section. – Added support details about the SP C250SF/C252SF and the SP C250DN/C252DN to the “8-7.Support for the SP C250SF/C252SF and the SP C250DN/C252DN” section. – Added PrinterSwitcher support for Windows 8.1 and Windows Server 2012 R2 to the “9-2-2. Specifications” section. – Added supported drivers for PrinterSwitcher to the “9-2-2. Specifications” section. – Added supported driver versions to the “9-4-2. Specifications” section. – Added details about “Save Driver Settings” to the “9-5. Save Driver Settings” section.

Version History:

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Version	Issued	Revisions
1.0.0	Feb. 18, 2009	Initial release
1.1.0	Mar. 30, 2009	<ul style="list-style-type: none"> - Added ports to the “Supported Ports > Specifications” section. - Added “User Interface” to the “Specifications” section. - Added models to the “Models > Specifications” section. - Added “Notes” section.
1.2.0	June 16, 2009	<ul style="list-style-type: none"> - Added models to the “Models > Specifications” section. - Added a “Note” to the “Supported Ports > Specifications” section. (The functionality described in the note has been supported since PS driver for Universal Print ver.1.00.00 but was not clearly stated in former versions of this document.) - Added information about the effect of “Bi-directional communication” on tray status. (The information added is not new. It has been part of the PS driver for Universal Print specification since ver.1.00.00. However, it was not clearly stated in former versions of this document.)
1.3.0	Aug. 17, 2009	<ul style="list-style-type: none"> - Renamed “Models” section to “Supported Models”. - Added models to the “Supported Models > Specifications” section. - Deleted “Aficio MP 1500” from the “Supported Models > Specifications” section.
1.4.0	Nov.13, 2009	<ul style="list-style-type: none"> - Added Windows 7/2008 R2 to the “> Supported Operating Systems > Specifications” section. - Added PrinterSwitcher Port to the “Supported Ports > Specification” section. - Added models to the “Supported Models > Specifications” section. - Added the “Generic Model” section. - Added “PrinterSwitcher” section.
1.5.0	Feb. 19, 2010	<ul style="list-style-type: none"> - Added supported models to the “Supported Models > Specifications” section. - Added supported models to the “Generic Model” section
1.6.0	May 19, 2010	- The PS Driver for Universal Print version is now ver.3.20.00. (No new functions or supported models have been added)
1.7.0	Sep. 13, 2010	- Added Aficio SP C430DN/C431DN to the “Supported Models > Specifications” section.

		<ul style="list-style-type: none"> - Added Aficio SP C430DN/C431DN to the “Generic Model” section. - Modified the “Upgrading the driver” procedure. - Modified the “Upgrading the driver” section. - Added “Uninstalling the driver” section. - Added “Disabling bi-directional communication” section. - Added “Economy Color” section.
2.0.0	Mar. 30, 2011	<ul style="list-style-type: none"> - This document has been reclassified a “White Paper” instead of a “Technical Information document”. - The PS Driver for Universal Print version is now ver.3.5.0.0. - Added the following models as being fully supported or supported as “Generic model”: - Aficio MP W2401/W3601, Aficio MP C4501, - Aficio MP C5501, Aficio MP C4501A, - Aficio MP C5501A, Aficio MP C3001, - Aficio MP C350, Aficio MP C300, - Aficio MP C300SR, Aficio MP C400, - Aficio MP C400SR, Aficio MP C2051, - Aficio MP C2551, Aficio SP C320DN - Added a “Scripting” section. - Added a “Point and Print” installation procedure. - Added a “Web Point and Print” installation procedure. - Added a “Plug and Play” installation procedure. - Added a reference to iPrint documentation. - Explained that the use of the PS DRIVER FOR UNIVERSAL PRINT with a server cluster is supported. - Explained that “Printer Driver Isolation” is supported. - Added information about the change in terminology for the setting “Print Mode > Economy Color”.
2.1.0	June 14, 2011	<ul style="list-style-type: none"> - Added Aficio MP 201 to the “Supported Models > Specifications” section. - Added Aficio MP 201 to the “Generic Model” section. - Added information about the way the driver retrieves an SNMP community name from a Novell iPrint server. - General corrections throughout.
2.2.0	Sep 22, 2011	<ul style="list-style-type: none"> - Remove Windows 2000 from support OS - Added information about “Microsoft Cluster Service and Failover Cluster”. - Added the information about Citrix environment.

		<ul style="list-style-type: none"> - Added some models to the “Supported Models. - Added some models to the “Generic Model” section. - Added information about “GUI based remote installation and queue creation”. - Added information for the Package Awareness to the point and print section. - Added a “Printer Driver Editor” overview section - Added a “Printer Driver Editor” specifications section
2.3.0	Oct 5, 2012	<ul style="list-style-type: none"> - Support for the following models: - Aficio SP C830DN/C831DN - Aficio SP 8300DN
2.4.0	Feb 1, 2013	<ul style="list-style-type: none"> - Added support for the following models: - MP 2001/2501 - Aficio SP C730DN - Added support for Windows 8 and Windows Server 2012 to the “Supported Operating Systems > Specifications” section. - Added information about Server Core. - Deleted the Plug and Play installation procedure. - Removed support for Citrix Presentation Server 4.
4.0.0	Jun. 29, 2013	-The PS Driver for Universal Print version is now v4.0.0.0.
4.1.0	Sep. 27, 2013	<ul style="list-style-type: none"> - Added support for the following models: - MP 2553/3053/3353 - Pro 8100S/8110S/8120S - Added newly supported languages to the “Supported Languages” in OVERVIEW section.
4.2.0	Dec. 22, 2013	<ul style="list-style-type: none"> - Added support for the following models: - MP 2003/2503 - Added newly supported operating systems to each regarding section. - Added newly supported features to "Other Important Points" section.
4.3.0	Mar. 20, 2014	<ul style="list-style-type: none"> - Added support for the following models: - MP C401/C401SR - Added “Japanese” to the “Supported Languages” section. - Added details about New Driver button support for do-it-yourself customized drivers to the “Do-It-Yourself Driver Customization” section. - Added supported driver versions to the “Printer Driver Packager NX” section.

		<ul style="list-style-type: none">- Added details about the “Gray Reproduction” setting to the “Gray Reproduction” section.- Added details about “Save Driver Settings” to the “Save Driver Settings” section.
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Version History:**PCL****PS**

Version	Issued	Revisions
4.4.0	July 11, 2014	<ul style="list-style-type: none"> - Added support for the following models in the “1-5. Supported Models – Printer Driver for Universal Print v4.4.0.0” section. <ul style="list-style-type: none"> - DI-C1k (Japanese model) - MT-P5 (Japanese model) - Luna-P2 (Japanese model) - Revised the support text for the Citrix XenApp in the “1-3-2. List of Supported Citrix Presentation Server and XenApp Systems” section. - Added “Korean” to the “1-6. Supported Languages” section. - Added “Japanese” to the help file in the “1-6. Supported Languages” section. - Added a new function to the “8-5. Paper Type Selection in Microsoft Word” section. - Added a new function to the “8-6. Job Type” section. - Added details about “PCL6 Mode” with the PE-MF4/P4 and RN-MF2/P2 in the “8-10. PCL6 Mode” section. - Added details about “2 at Center” staple with the Booklet function when using Generic Model mode in the “9-1-7. “2 at Center” Staple for Generic Mode” section.
4.5.0	October 17, 2014	<ul style="list-style-type: none"> - Added support for the following models to the “1-5. Supported Models – Printer Driver for Universal Print v4.5.0.0” section: <ul style="list-style-type: none"> - Cor-C1 - Moved the cases regarding printing methods for Citrix XenApp to the “1-4-1. Citrix XenApp” section. - Added limitations in the Citrix XenApp environment to the “Known issues and limitations” section. - Changed the makeup of the slide for the driver upgrade to the “6. Upgrading” section. - Changed the available version from v3.3.0.0 to v3.1.0.0 when updating Printer Driver for Universal Print v3.x to v4.x. - Added support for Roaming User Profiles that makes the user-defined One Click Icons and watermarks retained in the user profiles to the “8-7. Roaming User Profiles” section. - Added an explanation about the "Generic Model" selection being

		<p>listed under "auto" to the "9-1. Generic Model Mode" section.</p> <ul style="list-style-type: none">– Added support for 1200x1200 dpi as a resolution setting when using Generic Model mode to the "9-1-2. Supported Functions (as of v4.5.0.0)" section.– Changed the range of values for the custom paper size when using Generic Model mode to the "9-1-3. Custom Paper Size for the Generic Model" section.
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1 Overview

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- [Advantages of the Printer Driver for Universal Driver](#)
- [Supported Environments](#)
- [Supported Printing Methods](#)
- [Supported Models – Printer Driver for Universal Print v4.0.0.0](#)
- [Supported Languages](#)

1-1. What Is the Printer Driver for Universal Print?

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Unlike other Printer drivers, the Printer Driver for Universal Print is not model-specific. However, the functions shown in the interface will be tailored to the connected device.



1-2. Advantages of the Printer Driver for Universal Driver

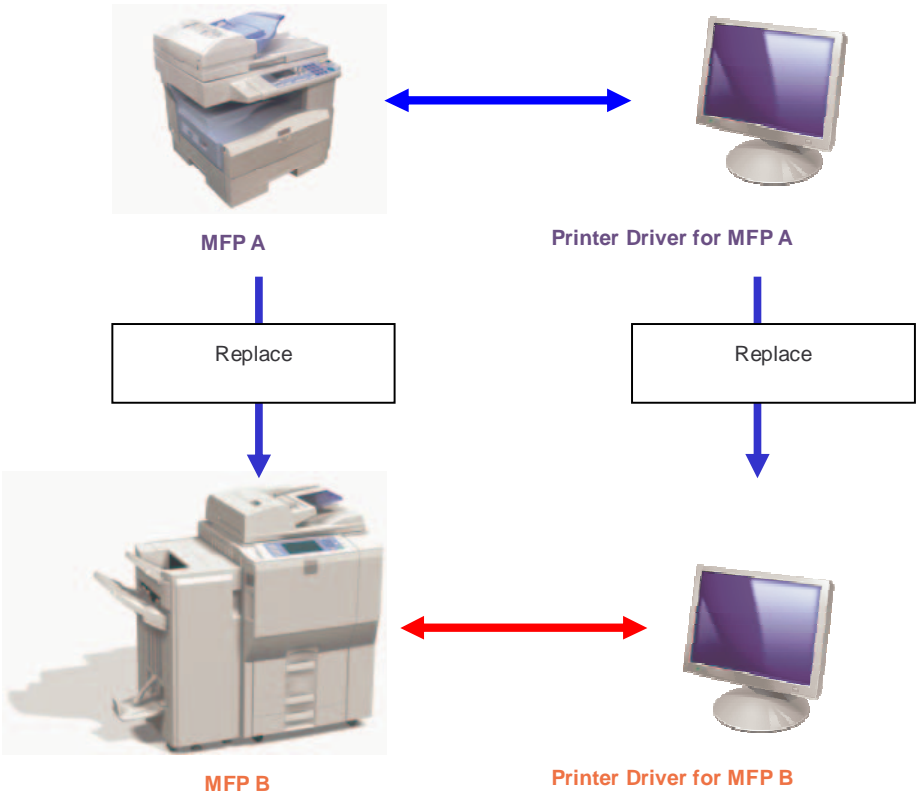
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1-2-1. Without the Printer Driver for Universal Print

Device replacement requires:

- Reinstalling the printer drivers.
- Reevaluating the whole system and recheck the installed drivers' compatibility with the new MFP or LP.
- Retraining users and operators.



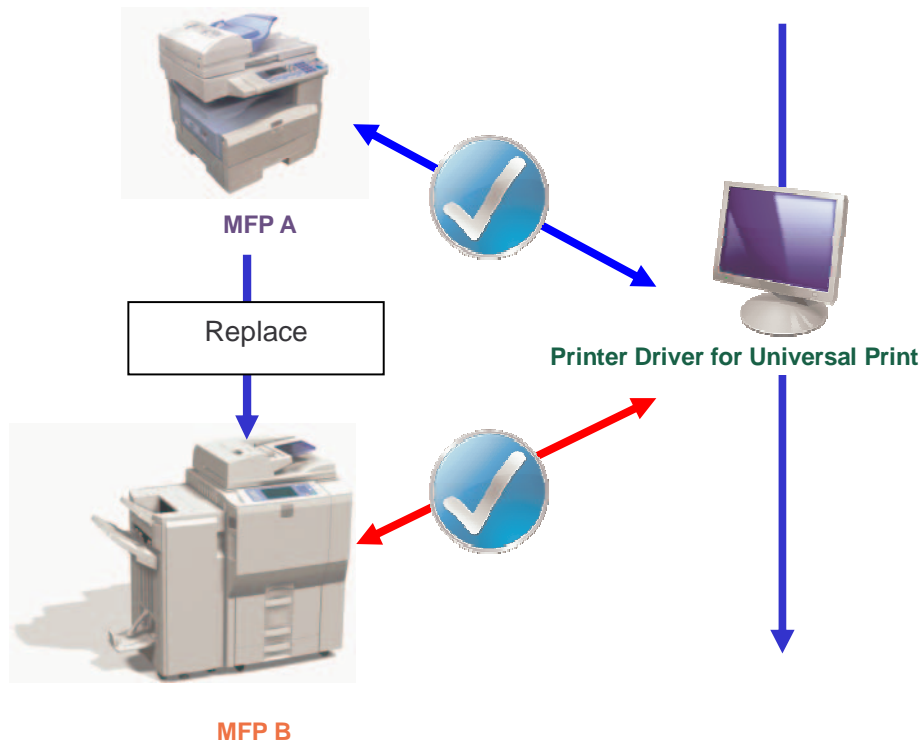
1-2-2. With the Printer Driver for Universal Print

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By using the universal driver, replacement is much simpler:



- Reinstallation is not required.
- Less intensive evaluation of the system (already evaluated when MFP A was installed).
- Minimal retraining required (new device features only).



1-3. Supported Environments**PCL****PS****1-3-1. List of Supported Operating Systems**

Operating System	Service Pack	Remarks	
		PCL6	PS
Windows XP Home Edition	SP3 or later	-	-
Windows XP Professional Edition (x86 and x64)	SP3 or later	-	-
Windows XP Media Center Edition	SP3 or later	*1	*a
Windows XP Tablet PC Edition	SP3 or later	*1	*a
Windows Vista Home Basic	SP1 or later	*2	-
Windows Vista Home Premium	SP1 or later	*2	-
Windows Vista Business	SP1 or later	*2	-
Windows Vista Enterprise	SP1 or later	*2	-
Windows Vista Ultimate	SP1 or later	*2	-
Windows 7 Home Premium (x86 and x64)	-	*3	*b
Windows 7 Professional (x86 and x64)	-	*3	*b
Windows 7 Enterprise (x86 and x64)	-	*3	*b
Windows 7 Ultimate (x86 and x64)	-	*3	*b
Windows 8 (x86 and x64)	-	*4	*c
Windows 8 Pro (x86 and x64)	-	*4	*c
Windows 8 Enterprise (x86 and x64)	-	*4	*c
Windows 8.1 (x86 and x64)	-	*5	*d
Windows 8.1 Pro (x86 and x64)	-	*5	*d
Windows 8.1 Enterprise (x86 and x64)	-	*5	*d
Windows Server 2003 Standard Edition (x86 and x64)	SP2 or later	-	-
Windows Server 2003 R2 Standard Edition (x86 and x64)	SP2 or later	-	-
Windows Server 2003 Enterprise Edition (x86 and x64)	SP2 or later	-	-
Windows Server 2003 R2 Enterprise Edition (x86 and x64)	SP2 or later	-	-
Windows Server 2008 Standard (x86 and x64)	-	*2*6	*e
Windows Server 2008 Enterprise (x86 and x64)	-	*2*6	*e
Windows Server 2008 R2 Standard (x64)	-	*3*6	*b*e
Windows Server 2008 R2 Enterprise (x64)	-	*3*6	*b*e
Windows Server 2012 Foundation (x64)	-	*4*6	*c*e
Windows Server 2012 Essentials (x64)	-	*4*6	*c*e
Windows Server 2012 Standard (x64)	-	*4*6	*c*e
Windows Server 2012 R2 Foundation (x64)	-	*5*6	*d*e
Windows Server 2012 R2 Essentials (x64)	-	*5*6	*d*e

Windows Server 2012 R2 Standard (x64)	-	*5*6	*d*e
Novell NetWare 6.5 with Service Pack 2 or later	-	-	-

 <p>*1: PCL6 Driver for Universal Print v3.13.0.0 or earlier only. *2: PCL6 Driver for Universal Print v1.4.0.0 or later only. *3: PCL6 Driver for Universal Print v3.0.0.0 or later only. *4: PCL6 Driver for Universal Print v3.13.0.0 or later only. *5: PCL6 Driver for Universal Print v4.2.0.0 or later only. *6: PCL6 Driver for Universal Print supports Server Core environments.</p>	 <p>*a: PS Driver for Universal Print v3.13.0.0 or earlier only. *b: PS Driver for Universal Print v3.00.00 or later only. *c: PS Driver for Universal Print v3.12.0.0 or later only. *d: PS Driver for Universal Print v4.1.0.0 or later only. *e: PS Driver for Universal Print supports Server Core environments.</p>
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1-3-2. List of Supported Citrix Presentation Server and XenApp Systems

PCL

PS

Supported Versions		v1.0.0.0 to v3.3.0.0 (v1.00.00)	v3.4.0.0 to v4.0.0.0	v4.1.0.0 or later
Presentation Server 4	32-bit	No	No	No
	64-bit	No	No	No
Presentation Server 4.5	32-bit	No	No	No
	64-bit	No	No	No
XenApp 5.0	32-bit	No	No	No
	64-bit	Yes	Yes	Yes
XenApp 6.0	64-bit	No	Yes	Yes
XenApp 6.5	64-bit	No	Yes	Yes
XenDesktop 7.0*	64-bit	No	No	Yes
XenDesktop 7.1*	64-bit	No	No	Yes

*These editions include a XenApp feature in each package, and we support only the XenApp feature of these as usual. This means that there is no support for the XenDesktop feature.

1-3-3. Microsoft Cluster Service and Failover Clusters

PCL

PS

We support using Printer Driver for Universal Print on the following Windows operating systems that include the Failover Clustering feature:**

- Windows Server 2003 and Windows Server 2003 R2 Enterprise Edition
- Windows Server 2008 and Windows Server 2008 R2 Enterprise Edition
- Windows Server 2012 Standard, Windows Server 2012 Foundation, and Windows Server 2012 Essentials
- Windows Server 2012 R2 Standard, Windows Server 2012 R2 Foundation, and Windows Server 2012 R2 Essentials

**PCL6 Driver for Universal Print v1.1.0.0 or later, or PS Driver for Universal Print v1.1.0.0 or later

PCL

PS

1-3-4. **Server Core Environments**

We support using the Printer Driver for Universal Print on the following Windows operating systems:

- Windows Server 2008 Standard and Windows Server 2012 Enterprise
- Windows Server 2008 R2 Standard and Windows Server 2012 Enterprise
- Windows Server 2012 Standard, Windows Server 2012 Foundation, and Windows Server 2012 Essentials
- Windows Server 2012 R2 Standard, Windows Server 2012 R2 Foundation, and Windows Server 2012 R2 Essentials

PCL

PS

1-3-5. **Novell Solutions**

The Printer Driver for Universal Print supports the following Novell products:

- NetWare 6.5 SP2 or later
- iPrint Client for Windows v5.20 or later

The Printer Driver for Universal Print supports the following NetWare services:

- NDPS
- iPrint

Known issues and limitations:

- NDPS Gateway is not supported.
- Universal Print cannot be installed on Windows Server 2003 via iPrint. This limitation doesn't apply to any other operating system.
- Universal Print* is required when using Novell iPrint.

*PCL6 Driver for Universal Print v1.1.0.0 or later, or PS Driver for Universal Print v1.1.0.0 or later.

Visit Novell's webpage for information about iPrint.

1-4. Supported Printing Methods

PCL

PS

- Local printer (standard TCP/IP or USB)
- Point and Print
- Failover Cluster on Windows Server
- Server Core environment
- Terminal Services environment
- Citrix XenApp
- Novell iPrint

1-4-1. Citrix XenApp

PCL

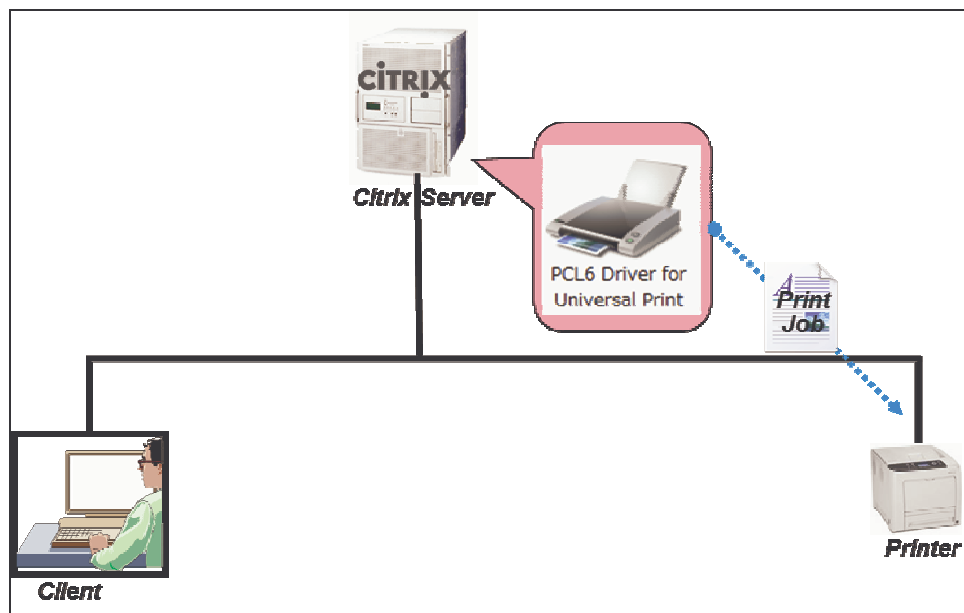
PS

We support using the Printer Driver for Universal Print in the following Citrix XenApp environment:

NOTE: Printing by using Citrix UPD—**cases (c) and (e)**—is not officially supported because the Citrix UPD is not a driver created by Ricoh. The Citrix UPD uses EMF data. EMF data can cause a variety of errors, depending on the application used to print. In addition, if a Citrix client has drivers that were installed via Point and Print, changes made to the Citrix UPD settings might not take effect.

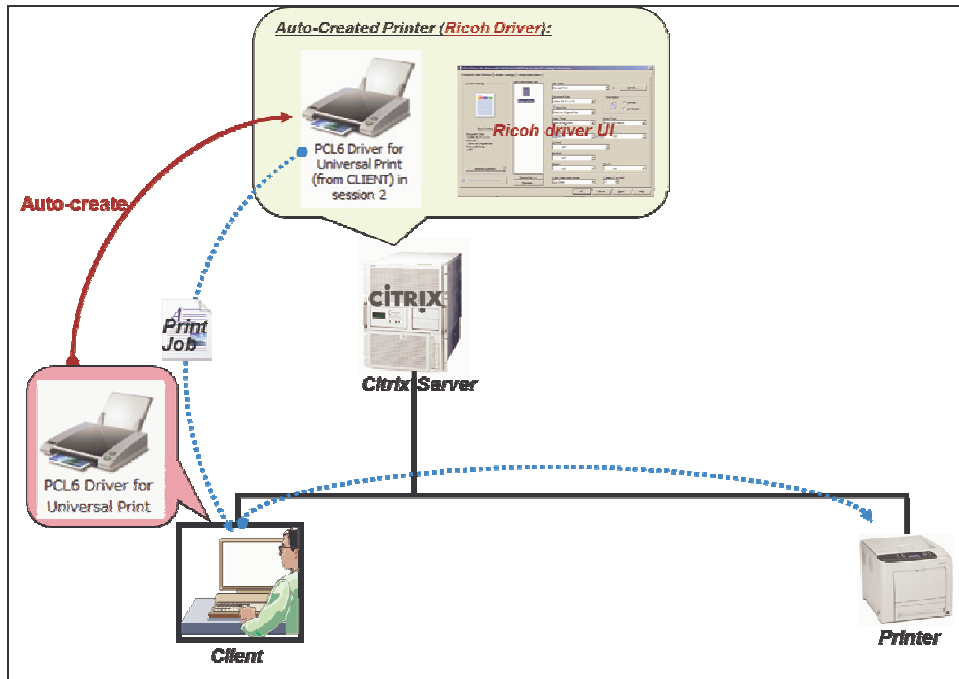
- **Case (a): Using the Server Local Printer**

A Ricoh driver is installed and a local print queue is created on the Citrix server in advance. The client logs on to the Citrix server via an ICA session and prints a document by using the server local print queue. The print job is directly sent to the printer.



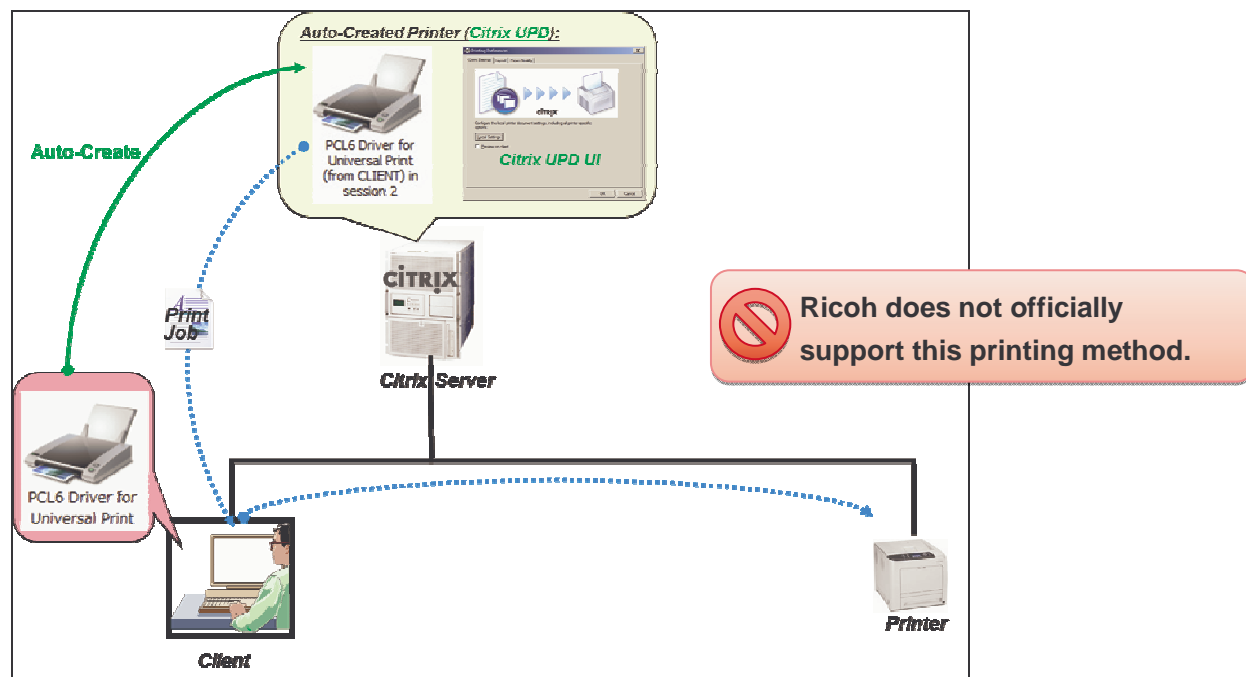
- **Case (b): Client Printing Pathway: Using the Auto-Created Client's Local Printer (Ricoh Driver)**

A Ricoh driver is installed on the Citrix server and, by using the same driver, a local print queue is created on the client in advance. When the client logs on to the Citrix server via an ICA session, the print queue on the client's computer is auto-created on the Citrix server by using the installed Ricoh driver. The client prints a document by using the auto-created print queue. The print job is sent to the printer via the client.



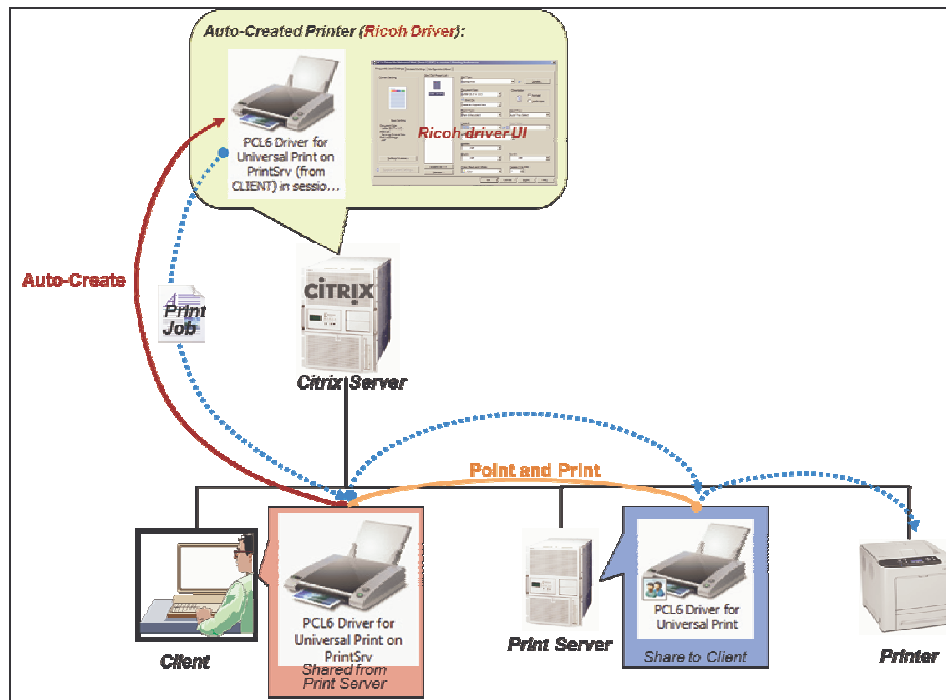
- **Case (c): Client Printing Pathway: Using the Auto-Created Client's Local Printer (Citrix UPD)**

The Citrix Universal Printer Driver (Citrix UPD) is preinstalled on the Citrix server by default and a local print queue is created in advance on the client by using a Ricoh driver. When the client logs on to the Citrix server via an ICA session, the print queue on the client's computer is auto-created on the Citrix server by using the Citrix UPD. The client prints a document by using the auto-created print queue. The print job is sent to the printer via the client.



- **Case (d): Client Printing Pathway: Using the Auto-Created Client's Network Printer (Ricoh Driver)**

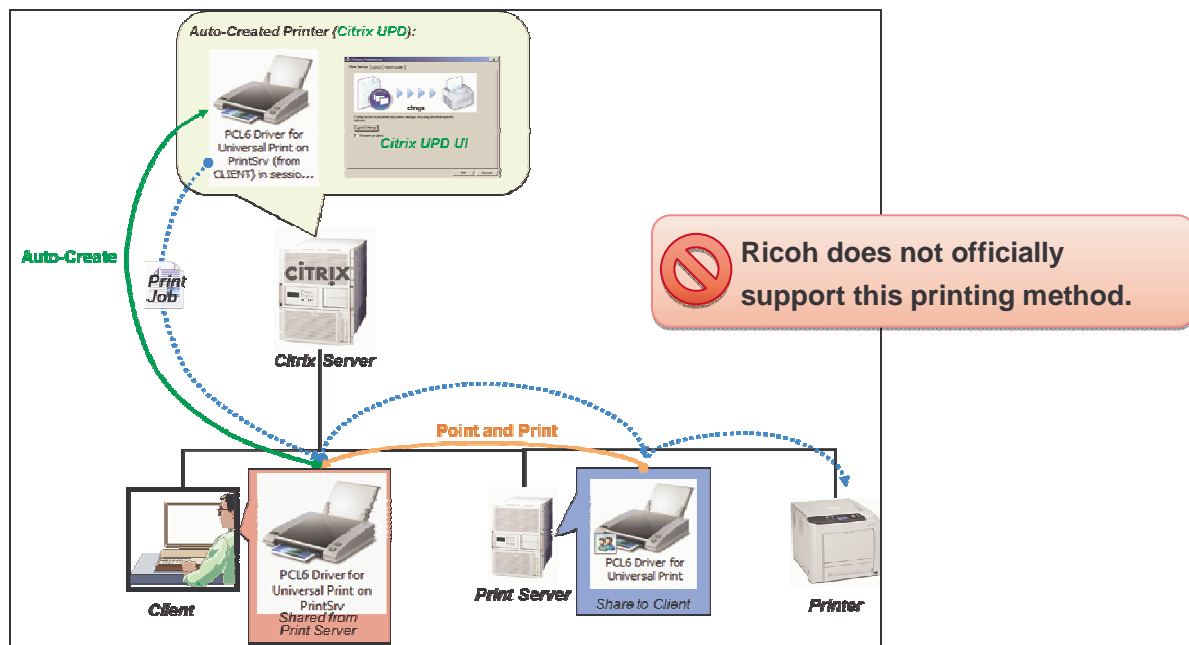
A Ricoh driver is installed on the Citrix server and, by using the same driver, a shared print queue is created on the print server. The print queue is shared with the client via Point and Print from the print server. When the client logs on to the Citrix server via an ICA session, the print queue that is being shared with the client by the print server is auto-created on the Citrix server by using the Ricoh driver. The client prints a document by using the auto-created queue. The print job is sent to the printer via the client and the print server.



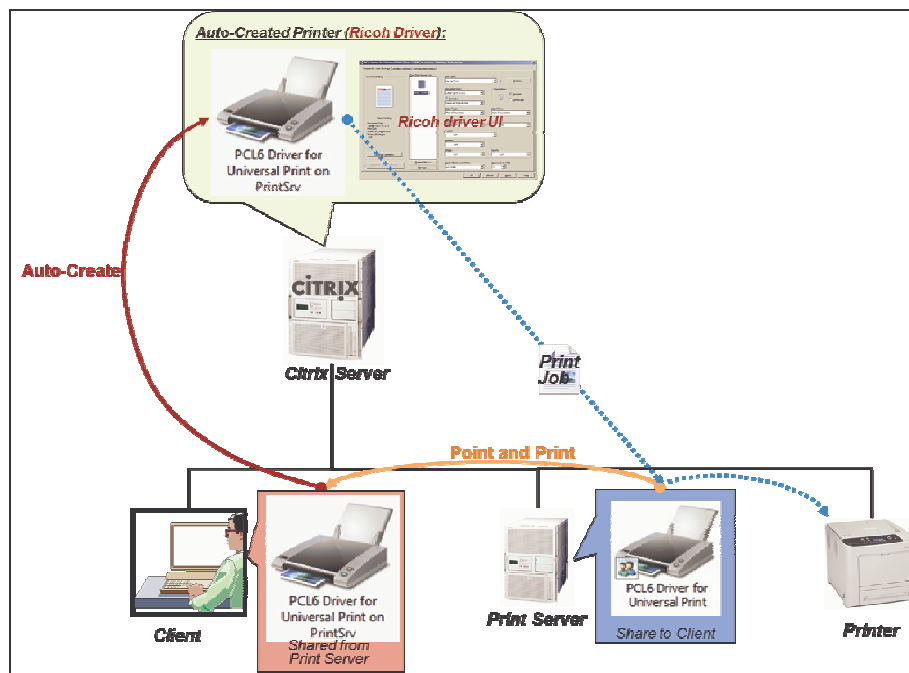
- **Case (e): Client Printing Pathway: Using the Auto-Created Client's Network Printer (Citrix UPD)**

The Citrix Universal Printer Driver (UPD) is preinstalled on the Citrix server by default. A Ricoh driver is installed and a shared print queue is created on the print server. The print queue is shared with the client via Point and Print from the print server.

When the client logs on to the Citrix server via an ICA session, the print queue that is being shared with the client by the print server is auto-created on the Citrix server by using the Citrix UPD. The client prints a document by using the auto-created queue. The job is sent to the printer via the client and the print server.



- Case (f): Network Printing Pathway: Using the Auto-Created Client's Network Printer (Ricoh Driver)**
 A Ricoh driver is installed and a shared print queue is created on the print server. The print queue is shared with the client via Point and Print from the print server. When the client logs on to the Citrix server via an ICA session, the print queue that is being shared with the client by the print server is auto-created on the Citrix server by using the Ricoh driver. The client prints a document by using the auto-created queue. The job is sent to the printer via the print server.



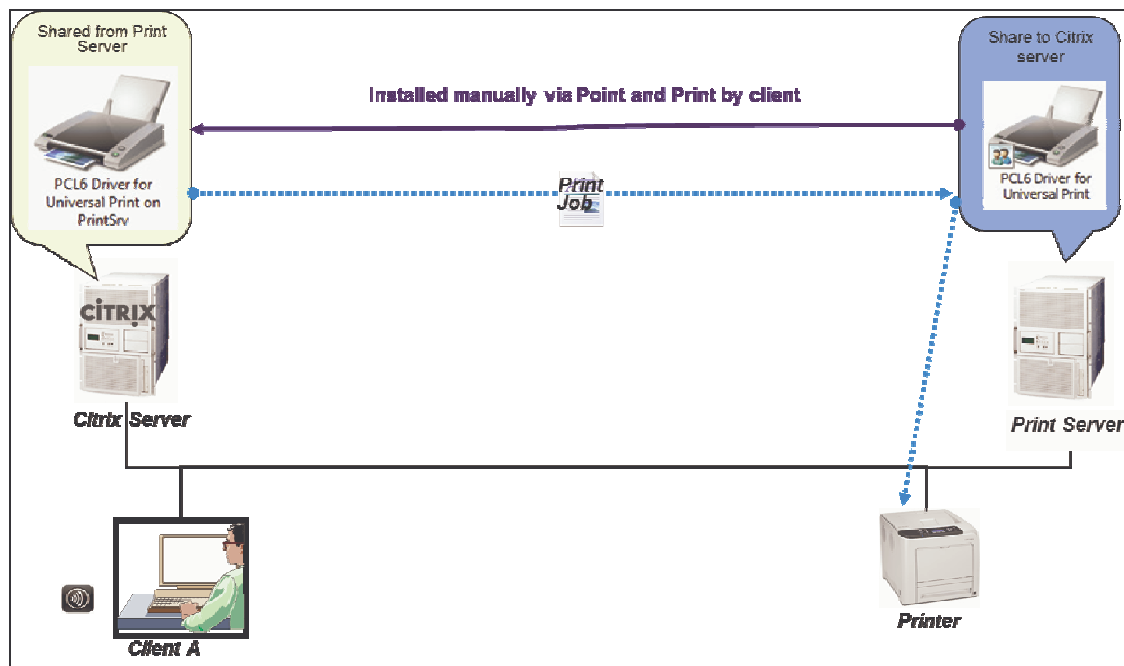
- **Case (g): Network Printing Pathway: Using the Citrix Server's Network Printer (Session Printer)**

A Ricoh driver is installed on the Citrix server and, by using the same driver, a shared print queue is created on the print server in advance. In addition, the print queue for the client on the print server is configured to be shared by using the Citrix "Session Printers" policy. When the client logs on to the Citrix server via an ICA session, the shared print queue on the print server will automatically be shared via Point and Print. The clients print by using the shared print queue. The print job is sent to the printer via the print server.



- **Case (h): Network Printing Pathway: Using the Citrix Server's Network Printer (Manual Point and Print)**

The Citrix server desktop or the Print folder is published to the client in advance. When the client logs on to the Citrix server via an ICA session, the client manually creates a print queue via Point and Print for current or a future session. The client prints a document using the print queue that has been created by the user. The print job is sent to the printer via the print server.



Known Issues and Limitations

- The Citrix replication function, which replicates driver files on another server, is not supported. Manually install the printer driver on each server.
- Device Option Utility is not supported for use with any version of the Printer Driver for Universal Print.
- The following settings configured to the client's local or network printer are not inherited by the auto-created printer that uses the Printer Driver for Universal Print—printing cases (b), (d) and (f):
 - User ID, Password and User name in Job Type Details
 - Login User Name and Login Password in Authentication
 - User code
 - Classification Code
 - One Click Presets
 - Watermarks (User defined)
- When configuring the user-defined One Click Icons and watermarks on the drivers on the Citrix server, these might not be retained after logging on again. In the Printer Driver for Universal Print v4.5.0.0 or later, this limitation is resolved by supporting [“8-7. Roaming User Profiles”](#).

1-5. Supported Models – Printer Driver for Universal Print v4.5.0.0

Model-specific mode is supported for the following models in Printer Driver for Universal Print v4.5.0.0. Old models are supported as Generic Model mode.

1-5-1. EXP Models

PCL

PS

Category	Product	PCL6		PS	
		Model-Specific	Generic Model	Model-Specific	Generic Model
MFPs	Aficio 2051/2060/2075		√		√
	Aficio 3025/3030		√		√
	Aficio 3035/3045		√		√
	Aficio 3224C/3232C		√		√
	Aficio 3228C/3235C/3245C		√		√
	Aficio 3260C, Aficio Color 5560(V)		√		√
	Aficio MP 1600/2000	√	√	√	√
	Aficio MP 161/161L		√		√
	Aficio MP 171	√	√	√	√
	Aficio MP 201	√	√	√	√
	Aficio MP 2352/2852/3352	√	√	√	√
	Aficio MP 2500/2500L		√		√
	Aficio MP 2510/3010		√		√
	Aficio MP 2550(B)/3550(B)	√	√	√	√
	Aficio MP 2851/3351	√	√	√	√
	Aficio MP 301	√	√	√	√
	Aficio MP 3500/4500		√		√
	Aficio MP 4000(B)/5000(B)	√	√	√	√
	Aficio MP 4001/5001	√	√	√	√
	Aficio MP 4002/5002	√	√	√	√
	Aficio MP 5500/6500/7500		√		√
	Aficio MP 6000/7000/8000		√		√
	Aficio MP 6001/7001/8001/9001	√	√	√	√
	Aficio MP 6002/7502/9002	√	√	√	√
	Aficio MP 9000/1100/1350		√		√
	Aficio MP C1500/615C		√		√
	Aficio MP C2000/C2500/C3000		√		√

	Aficio MP C2030/C2530/C2050/C2550	√	√	√	√
	Aficio MP C2051/C2551	√	√	√	√
	Aficio MP C2800/C3300	√	√	√	√
	Aficio MP C300/C400/C300(SR)/C400(SR)	√	√	√	√
	Aficio MP C3001/C3501	√	√	√	√
	Aficio MP C3002/C3502	√	√	√	√
	Aficio MP C305	√	√	√	√
	Aficio MP C3500/C4500		√		√
	Aficio MP C4000/C5000	√	√	√	√
	Aficio MP C4501(A)/C5501(A)	√	√	√	√
	Aficio MP C4502(A)/C5502(A)	√	√	√	√
	Aficio MP C6000/C7500	√	√	√	√
	Aficio MP C6501/C7501	√	√	√	√
	Aficio SP 3500SF/3510SF		√		
	Aficio SP 4400S/4410SF/4420SF	√			
	Aficio SP 5200S/5200SF/5200SR	√	√	√	√
	MP 2001/2501	√	√	√	√
	MP 2553/3053/3353	√	√	√	√
	MP 2554/3054/3554/4054/5054/6054	√	√	√	√
	MP C401/C401SR	√	√	√	√
	MP C2003(Z)/C2503(Z)	√	√	√	√
	MP C3003/ C3503/C4503/C5503/C6003	√	√	√	√
	MP C6502/C8002, Pro C5100S/C5110S	√	√	√	√
	SP C250SF/C252SF	√			
	Pro 906EX/1106EX/1356EX		√	√	√
	Pro 907EX/1107EX/1357EX	√	√	√	√
	Pro 8100S/8110S/8120S	√	√	√	√
LPs	Aficio AP410/410N		√		√
	Aficio AP610N		√		√
	Aficio AP900		√		√
	Aficio CL3500N		√		√
	Aficio CL4000DN/CL4000HDN		√		√
	Aficio CL7200/CL7300		√		√
	Aficio SP 3500N/3510DN		√		
	Aficio SP 4100N/4100NL/4110N	√	√	√	√
	Aficio SP 4210N	√	√	√	√
	Aficio SP 4310N	√	√	√	√
	Aficio SP 5200DN/5210DN	√	√	√	√

	Aficio SP 6330N	√	√	√	√
	Aficio SP 8100DN		√		√
	Aficio SP 8200DN	√	√	√	√
	Aficio SP 8300DN	√	√	√	√
	Aficio SP 9100DN	√	√	√	√
	Aficio SP C320DN	√	√	√	√
	Aficio SP C400DN/C411DN/C410DN		√		√
	Aficio SP C420DN	√	√	√	√
	Aficio SP C430DN/C431DN	√	√	√	√
	Aficio SP C730DN	√	√	√	√
	Aficio SP C811DN		√		√
	Aficio SP C820DN/821DN	√	√	√	√
	Aficio SP C830DN/C831DN	√	√	√	√
	SP C250DN/C252DN	√			
WFs	Aficio MP W2400/W3600				√
	Aficio MP W2401/W3601				√
	Aficio SP W2470				√

PCL

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1-5-2. Japanese Models

As of Printer Driver for Universal Print v4.4.0.0, Japanese models will be supported. However, only Generic Model mode will be supported.

Category	Product	Model-Specific	Generic Model
MFPs	imaggio MP 3350(B)/2550(B)		√
	imaggio MP 3352/2552		√
	imaggio MP 5000(B)/4000(B)		√
	imaggio MP 5002/4002		√
	imaggio MP 9001(T)/7501/6001		√
	imaggio MP 9002(T)/7502/6002		√
	imaggio MP C2200/C1800		√
	imaggio MP C2201		√
	imaggio MP C3300/C2800		√
	imaggio MP C3301/2801		√
	imaggio MP C3302/C2802		√
	imaggio MP C5000/C4000		√
	imaggio MP C5001/4001		√
	imaggio MP C5002(A)/C4002(A)		√
	imaggio MP C7500/C6000		√
	imaggio MP C7501/C6001		√
	MP 1601/1301		√
	MP 3353/2553		√
	MP C305		√
	MP C2503(Z)/C1803		√
	MP C3503(Z)/C3003(Z)		√
	MP C6003(Z)/C5503(A/Z/AZ)/C4503(A/Z/AZ)		√
	MP C8002/C6502		√
	Pro C5110S/C5100S		√
	Pro 6100(HT/HE)		√
	Pro 8120S/8110S/8100S		√
	Pro 1357EXP/1107EXP/907EXP		√
LPs	IPSiO SP 4210		√
	IPSiO SP 4310/ 4300		√
	IPSiO SP 6330/ 6320/ 6310		√
	IPSiO SP 8200		√
	IPSiO SP 8300(M)		√

	IPSiO SP C320		√
	IPSiO SP C420		√
	IPSiO SP C721(M)/C720		√
	IPSiO SP C731(M)/C730(M/L)		√
	IPSiO SP C821(M)/C820(M)		√
	IPSiO SP C831(M)/C830(M)		√

PCL

PS

1-6. Supported Languages

The Printer Driver for Universal Print supports the following languages:

Languages	PCL6	PS
English	√	√
German	√	√
French	√	√
Italian	√	√
Spanish	√	√
Dutch	√	√
Danish	√*	√*
Norwegian	√*	√*
Swedish	√*	√*
Finnish	√*	√***
Polish	√*	√***
Czech	√*	√***
Hungarian	√*	√***
Catalan	√*	√***
Turkish	√*	√***
Russian	√*	√***
Portuguese	√*	√***
Brazilian Portuguese	√*	√***
Greek	√*	√***
Simplified Chinese	√*	√*
Traditional Chinese	√*	√*
Japanese	√**	√**
Korean***	√***	√***

*Printer Driver for Universal Print v4.1.0.0 or later only. However, depending on the model, some of these languages might not be supported. Generic Model mode supports all of these languages.

**Printer Driver for Universal Print v4.3.0.0 or later only. Generic Model mode only.

***Printer Driver for Universal Print v4.4.0.0 or later only.

NOTE: The help files are in the following languages:

- Printer Driver for Universal Print v4.3.0.0 and earlier: **English**
- Printer Driver for Universal Print v4.4.0.0 and later: **English and Japanese**

Regarding “How does the driver detect the language for its UI”, please refer to the [“5-2-1. How Does the Driver Detect the Language for Its UI?”](#) section.

2 Certification Support

- [WHQL and the Windows Catalog](#)
- [Citrix Ready](#)

2-1. WHQL and the Windows Catalog

2-1-1. WHQL Certification

PCL

PS

Printer Driver for Universal Print v4.0.0.0 and later include WHQL certification for the following operating systems:

- Windows XP
- Windows Vista
- Windows 7
- Windows 8
- Windows 8.1*
- Windows Server 2003
- Windows Server 2008
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2*

*Printer Driver for Universal Print v4.3.0.0 or later only.

2-1-2. Windows Catalog

PCL

PS

Although Printer Driver for Universal Print v3.x includes WHQL certification for some operating systems, it is not possible to list it in the Windows Catalog because of its specifications.

The driver structure has been changed as of Printer Driver for Universal Print v4.0.0.0, so the driver is now listed in the Windows Catalog. This will help us promote to users the compatibility of the Printer Driver for Universal Print on the Windows operating system:

- Microsoft Server Catalog
www.windowsservercatalog.com/results.aspx?&chtext=&cstext=&csttext=&chbtext=&bCatID=1326&cpID=1783&avc=10&ava=0&avq=0&OR=1&PGS=25&ready=0
- Client Catalog:
<https://sysdev.microsoft.com/en-US/Hardware/lpl/>

2-2. Citrix Ready

PCL

PS

Ricoh has validated the Printer Driver for Universal Print by using Citrix Ready Verification Test Kits to meet the Citrix Ready program and ensure that it complements customers' investments in Citrix solutions. The kits and additional information are available at the following links:

- Citrix Ready for Ricoh: www.citrix.com/ready/en/ricoh
- Citrix Ready Verification Testing:
www.citrix.com/English/partners/programs/thirdLevel.asp?programID=1681660&tIID=1860442

3 Supported Windows Architecture

- [Printer Driver Isolation](#)
- [Package Awareness](#)

3-1. Printer Driver Isolation

PCL

PS

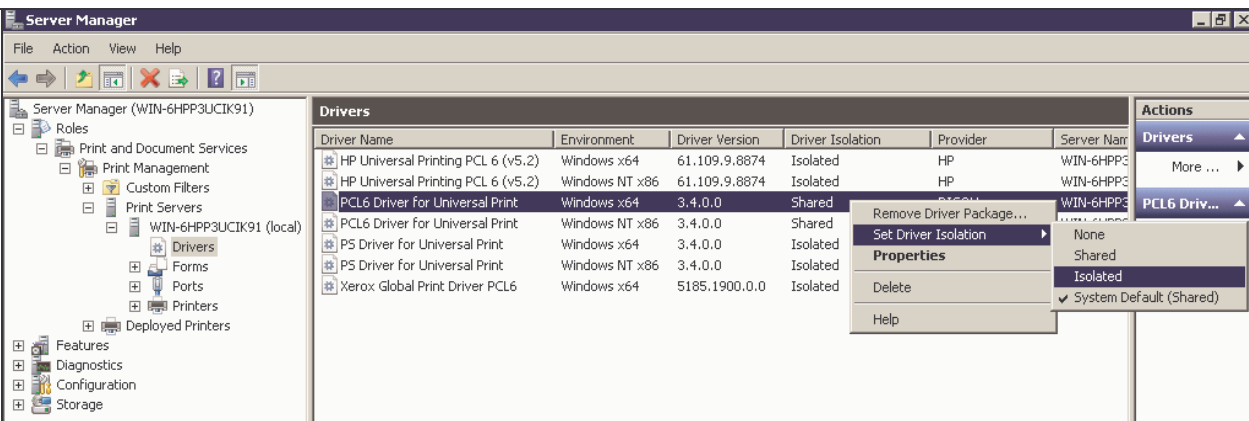
Printer Driver for Universal Print v3.4.0.0 and later support Print Driver Isolation. Printer Driver Isolation lets the driver run completely separate from the spooler. This makes an individual driver less likely to crash the spooler and prevent all drivers from printing.

The Printer Driver for Universal Print uses Isolation mode by default. When first installed, the driver's isolation mode will be "Shared", but this can be changed after installation.

Configuration (Windows Server 2008 R2)

Start > Administrative Tools > Server Manager > Roles > Print and Document Services > Print Management > Print Servers > Server Name > Drivers

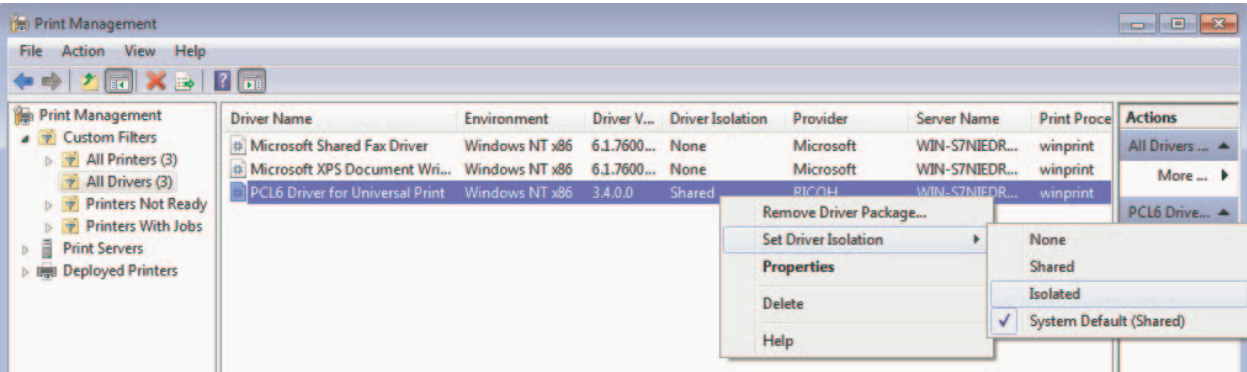
Right-click a driver > Set Driver Isolation



Configuration (Windows 7)

Start > Control Panel > System and Security > Administrative Tools > Print Management > Custom Filters > All Drivers

Right-click a driver > Set Driver Isolation



3-2. Package Awareness

PCL

PS

Printer Driver for Universal Print* and later take advantage of Package Awareness. An explanation of Package Awareness can be found on the Microsoft website. The purpose of making our driver package aware was to prevent users from being prompted to log on when they install the driver.

*PCL6 Driver for Universal Print v3.8.0.0 or later, or PS Driver for Universal Print v3.9.0.0 or later

4 Do-It-Yourself Customized Driver

The Printer Driver for Universal Print can be customized to change the default settings, lock or limit settings, and adjust other options. This do-it-yourself customization can be implemented by using Printer Driver Packager NX without the driver losing its WHQL certification.

Please refer to the “[9-4-2. Specifications](#)” section regarding the supported driver versions.

5 Setup

- [Installation](#)
- [Localization and Regional Formats](#)
- [Bidirectional Communication](#)
- [Point and Print](#)
- [Web Point and Print](#)

5-1. Installation

5-1-1. Before Installing the Printer Driver

PCL

PS

The newest Printer Driver for Universal Print includes the latest bug fixes and improves performance. To download the newest version of the driver:

1. Go to the Ricoh driver download website.
2. Click on the desired operating system.
3. Click the arrow mark to download the Printer Driver for Universal Print.
4. Unzip the downloaded file.

5-1-2. Installation and Queue Creation Locally

PCL

PS

Close all applications before installing the Printer Driver for Universal Print.

Windows 8, Windows 8.1, Windows Server 2012 and Windows Server 2012 R2

1. From the Charms Bar, select **Settings**, navigate to the **Control Panel**, click **View Devices and Printers**, and then select **Add a printer**.
2. When the “Add Printer” window appears, displaying the message “Searching for available printer...”, click **“The printer that I want isn’t listed”**.
3. In the “Find a printer by other options” window, select **“Add a local printer or network printer with manual settings”** and then click **Next**.
4. In the “Choose a printer port” window, select **“Create a new port:”**, choose **Standard TCP/IP Port** as the “Type of port:”, and then click **Next**.
5. In the “Type a printer hostname or IP address” window, enter the **hostname** or **IP address** in “Hostname or IP address”, uncheck **“Query the printer and automatically select the driver to use”**, and then click **Next**.
6. When the “Install the printer driver” window appears, click **Have Disk....**
7. Browse to the folder that contains the driver files, which are typically on the device’s installation CD or downloaded from the website as an executable file, and then click **OK**.

8. Follow the wizard's instructions to complete the installation.

Windows Vista, Windows 7, Windows Server 2008, and Windows Server 2008 R2

1. From the **Start** menu, select **Devices and Printers** and then click **Add a printer**.
2. The "Add Printer" dialogue will appear, asking "What type of printer do you want to install?" Select **"Add a local printer"**.
3. After the "Choose a printer port" dialogue appears, select **"Create a new port:"**, choose **Standard TCP/IP Port** as the "Type of port:", and click **Next**.
4. Enter the **device's IP address** and uncheck **"Query the printer and automatically select the driver to use"**. Click **Next**.
5. When the "Install the printer driver" dialogue appears, click **Have Disk....**
6. Browse to the folder that contains the driver files (typically the CD-ROM or an extracted archive downloaded from the website) and click **OK**.
7. Follow the rest of the wizard's instructions to complete the installation.

Windows XP and Windows Server 2003

1. Open **Printers and Faxes** from the Start menu.
2. Select **Add Printer**.
3. When the "Welcome to the Add Printer Wizard" dialogue appears, click **Next**.
4. When the "Local or Network Printer" dialogue appears, select **"Local printer attached to this computer"** and click **Next**.
Note: Do not enable "Automatically detect and install my Plug and Play printer".
5. When the "Select a Printer Port" dialogue appears, select **"Create a new port:"**, choose **Standard TCP/IP Port** as the "Type of port:", and click **Next**.
6. When the "Add Standard TCP/IP Printer Port Wizard" dialogue appears, click **Next**.
7. Enter the **device's IP address** or **hostname** and click **Next**.
8. When the "Install Printer Software" dialogue appears, select **Have Disk....**
9. Browse to the folder that contains the driver files (typically the CD-ROM or an extracted archive downloaded from the website) and click **OK**.
10. Follow the rest of the wizard's instructions to complete the installation.

NOTES:

- Only one version of the Printer Driver for Universal Print should be installed on the system at one time. If more than one version of the driver is installed on the system, problems will likely occur.
- While installing the driver, Windows might suggest keeping a newer file that is already installed on Windows. If prompted, select Yes.
- As of Printer Driver for Universal Print v4.2.0.0, during the installation procedure, a dialog window will appear that will prompt for the generic name (PCL6/PS Driver for Universal Print)

or a version-specific name (RICOH PCL6/PS UniversalDriver Vx.x) of the driver. The version-specific name of the driver cannot be upgraded to a new version of the driver because the naming between the driver with the new version-specific name and the old one is different. Therefore, if there are plans to upgrade the driver to a later version in the future, please select the driver with the generic name. For more information about the differences in driver names, please refer to the "[5-6. Version Management Support](#)" section.

5-1-3. Remote Installation

PCL

PS

The Printer Driver for Universal Print supports remote installations on the print server from workstations. This installation should be done in a Failover Cluster or Server Core environment.

Failover Cluster Environment

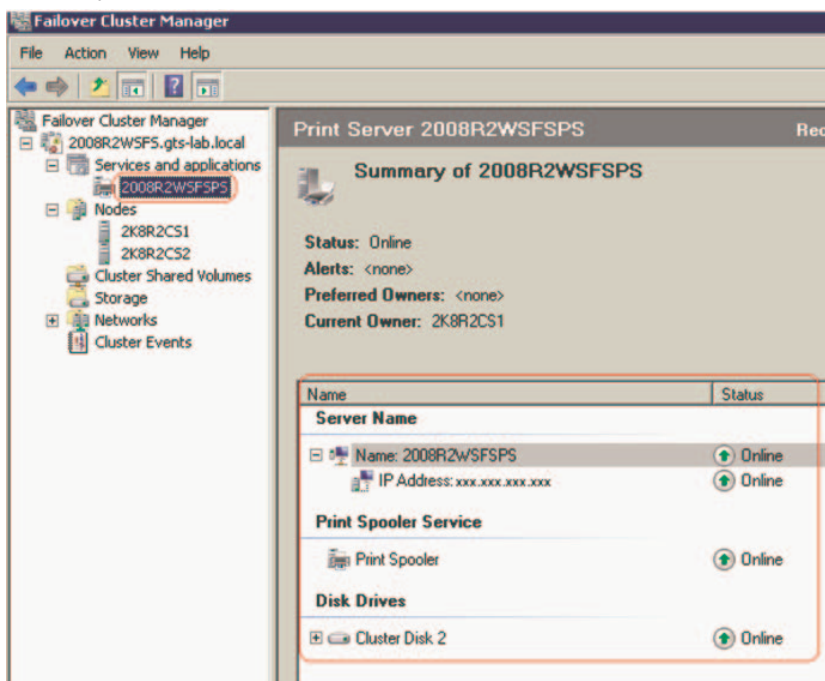
PCL

PS

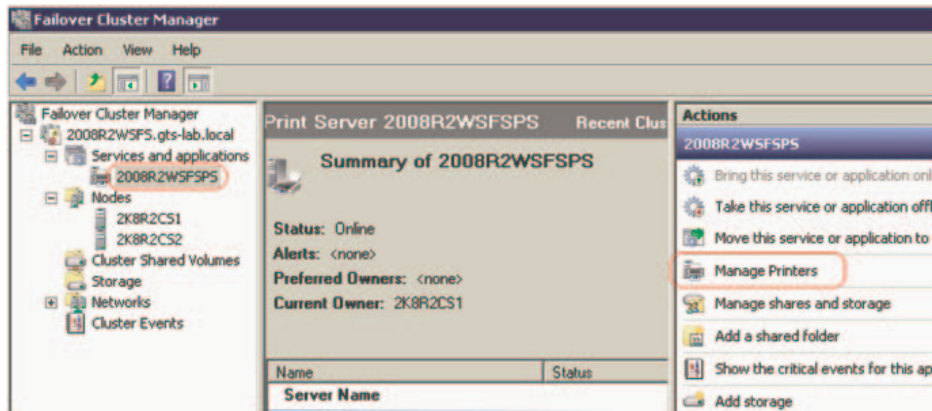
We support the installation of Printer Driver for Universal Print* via Failover Cluster Manager in Windows Server. The following procedure is our recommended installation method:

*PCL6 Driver for Universal Print v1.1.0.0 or later

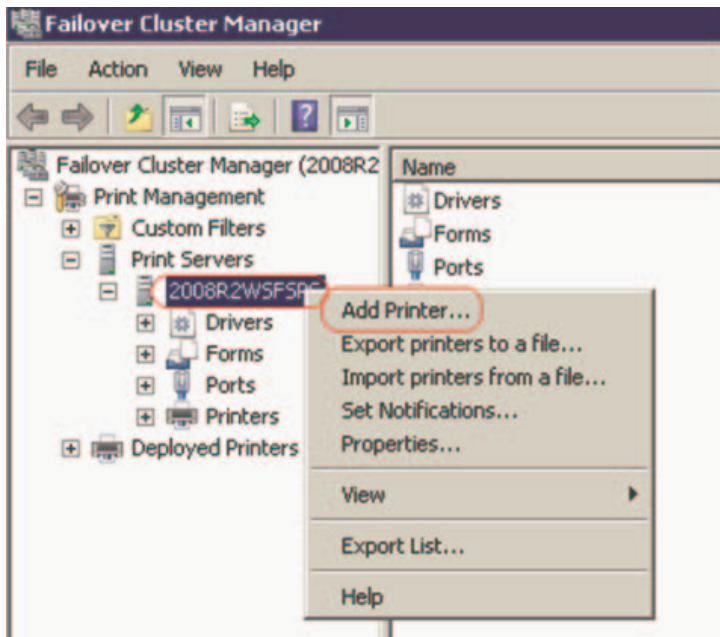
1. Select your cluster.



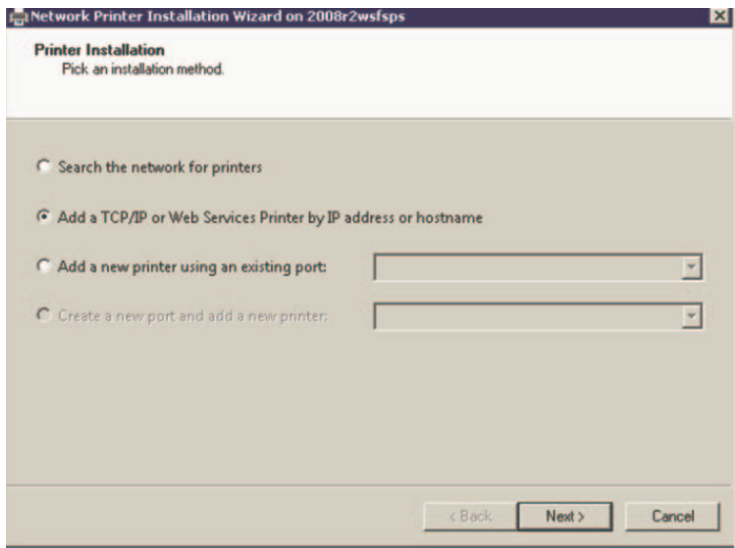
2. Choose **Manage Printers**.



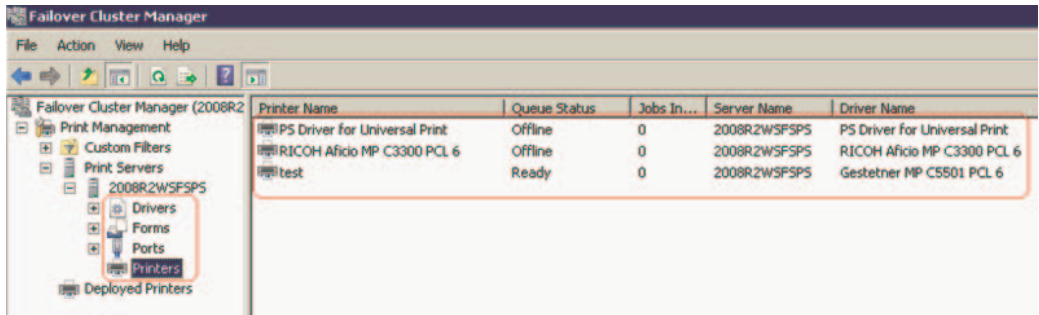
3. Right-click on the cluster and select **Add Printer....**



4. Follow the instructions in the printer installation wizard. This is the same as adding a queue to a nonclustered server.



5. Check that the queue was created.



NOTE: A similar procedure for Windows Server 2003 can be found here:
<http://technet.microsoft.com/en-us/library/cc757083%28v=ws.10%29.aspx>

Install Printer Driver via Print Management Console for Server Core Environments

PCL

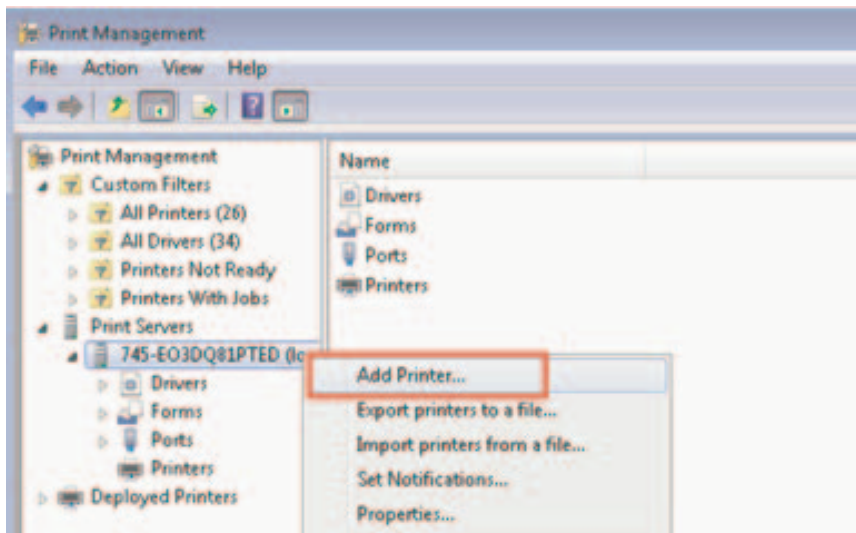
PS

We support the installation of the Printer Driver for Universal Print via Print Management.

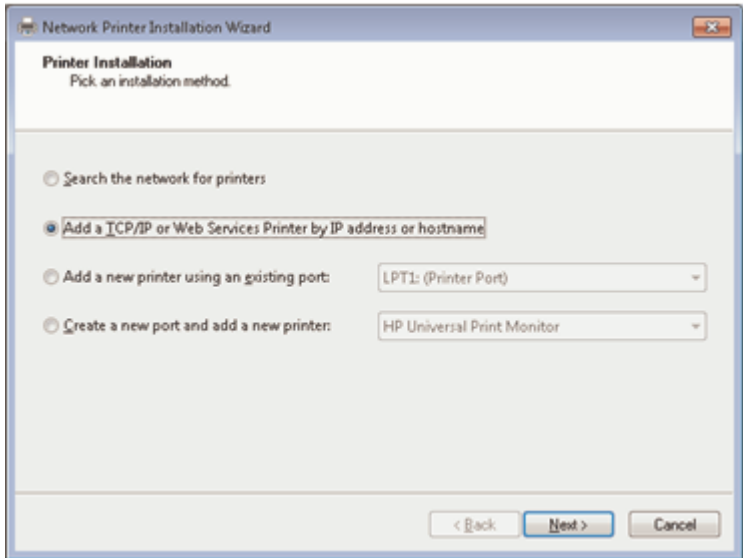
1. Choose a server that has Server Core installed.



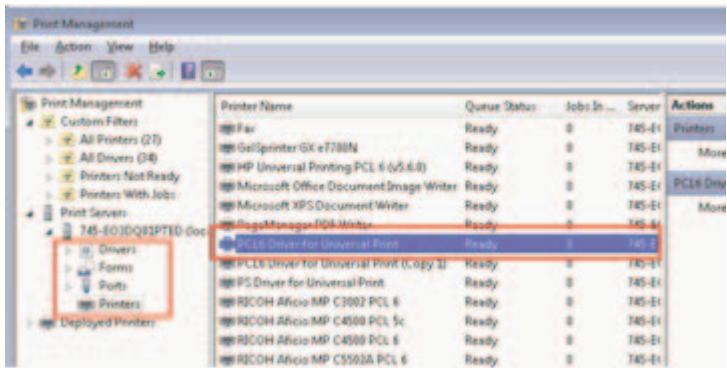
2. Right-click the server and select **Add Printer...**



3. Follow the instructions in the printer installation wizard. This process is the same as adding a queue to a nonclustered server.



4. Check that the queue was created.



PCL

PS

5-1-4. Scripting

We support the installation of the Printer Driver for Universal Print via scripting. This section shows a sample installation of the Printer Driver for Universal Print by using commands.

The following command will:

- Create a queue called “Ricoh Printer”.
- Use oemsetup.inf to install the driver.
- Assign the port “LPT1:” to the queue.

Sample:

```
rundll32 printui.dll,PrintUIEntry /if /b “Ricoh Printer” /f oemsetup.inf /r “LPT1:” /m “PCL6 Driver for Universal Print”
```

For information about the usage of this command, type:

```
rundll32 printui.dll,PrintUIEntry /?
```

PCL

PS

5-1-5. Manual Installation

The Printer Driver for Universal Print does not support USB Plug and Play installation, but manual installation is available.

Windows 7, Windows 8, Windows 8.1, Windows Server 2008 R2, Windows Server 2012 and Windows Server 2012 R2

1. Log on to Windows as an administrator.
2. Close any open applications.
3. Connect the device to a computer by using a USB cable and then power on the device.
4. Automatic installation of the device driver will appear to start and then fail, displaying the message “Device driver software was not successfully installed”. Close this message.
5. Open **Device Manager**.
6. The device should be listed under “Other devices”. Right-click the device and select “**Update Device Software...**”.
7. When the “Update Device Software” screen is displayed, select “**Browse my computer for driver software**”.
8. Browse to the folder that contains the driver files (typically an extracted archive downloaded from the website) and click **OK**.
9. Follow the rest of the wizard’s instructions to complete the installation.

Windows XP, Windows Server 2003, Windows Vista, and Windows Server 2008

1. Log on to Windows as an administrator.
2. Close any open applications.
3. Connect the device to the computer by using a USB cable and then power on the device.
4. If the “Found New Hardware” message appears, click **Cancel** to close it.
5. Open **Printers and Faxes** from the Start menu.
6. Select **Add Printer**.
7. When the “Welcome to the Add Printer Wizard” message appears, click **Next**.
8. When the “Local or Network Printer” dialogue appears, select “**Local printer attached to this computer**” and click **Next**.
Note: Do not enable “Automatically detect and install my Plug and Play printer”.
9. When the “Select a Printer Port” dialogue appears, select “**Virtual printer port for USB**” as the port type.
10. When the “Install Printer Software” dialogue appears, select **Have Disk....**
11. Browse to the folder that contains the driver files (typically an extracted archive downloaded from the website) and click **OK**.
12. Follow the rest of the wizard’s instructions to complete the installation.

5-2. Localization and Regional Formats

5-2-1. How Does the Driver Detect the Language for Its UI?

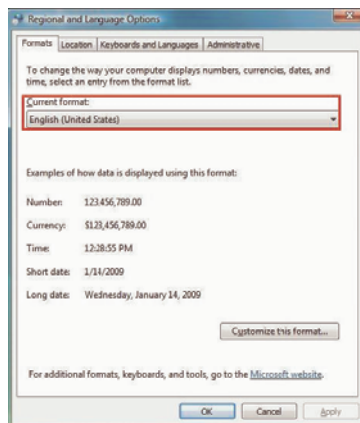
PCL

PS

The Printer Driver for Universal Print automatically selects the language for the driver user interface (UI).

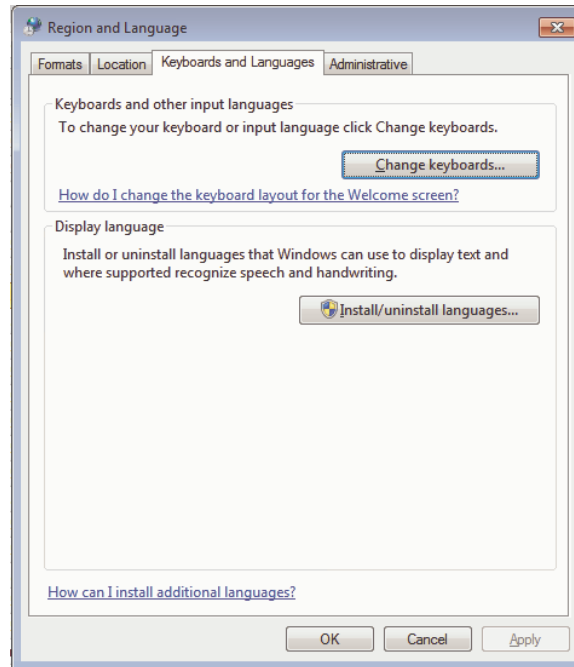
PCL6 Driver for Universal Print v1.0.0.0 to v1.3.0.0:

The driver automatically selects the language specified in Regional and Language Options.



PS Driver for Universal Print v1.0.0.0 or later

The driver supports the Windows Multilingual User Interface (MUI) package. The driver automatically selects the language specified in Regional and Language Options.



If an MUI language pack is installed:

The PS Driver for Universal Print supports several different languages. The one that is used is determined by the "Language used in menus and dialogs" setting in Windows XP or the "Display language" setting in Windows Vista, Windows 7, Windows 8, or Windows 8.1.

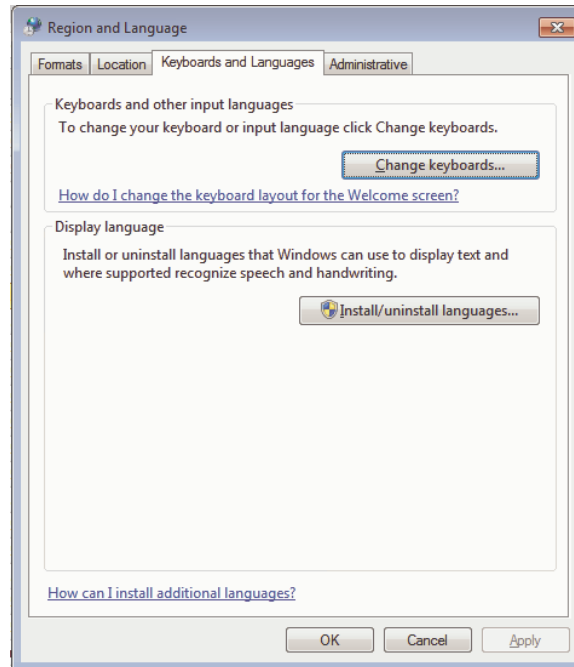
Note: These are only visible if an MUI language pack has been installed. If the language selected for the "Language used in menus and dialogs" setting in Windows XP or the "Display language" setting in Windows Vista, Windows 7, Windows 8, or Windows 8.1 is not supported by the driver, English is used.

If an MUI language pack is NOT installed:

If possible, the driver UI will be the language of the OS. If the language of the OS is unsupported, the UI language is determined by the language configured for the "Standards and Formats" setting in Windows XP or the "Format" setting in Windows Vista, Windows 7, Windows 8, or Windows 8.1. If that is unsupported, the "Language for non-Unicode programs" setting will be used. English will be used if none of the above are supported.

- **PCL6 Driver for Universal Print v1.4.0.0 or later, or PS Driver for Universal Print v4.0.0.0 or later**

The driver supports the Windows Multilingual User Interface (MUI) package. The driver automatically selects the language specified in Regional and Language Options.



If an MUI language pack is installed:

The Printer Driver for Universal Print supports several different languages. The one that is used is determined by the "Language used in menus and dialogs" setting in Windows XP or the "Display language" setting in Windows Vista, Windows 7, Windows 8, or Windows 8.1.

Note: These are only visible if an MUI language pack has been installed. If the driver does not support the language selected for the "Language used in menus and dialogs" setting in Windows XP or the "Display language" setting in Windows Vista, Windows 7, Windows 8, or Windows 8.1, then English will be used.

If an MUI language pack is not installed:

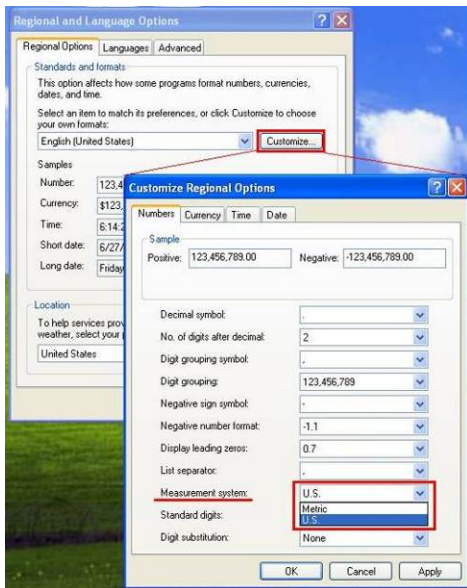
If possible, the driver UI will be the language of the OS. If the language of the OS is not supported, then English will be used.

5-2-2. Determining the Default Paper Size

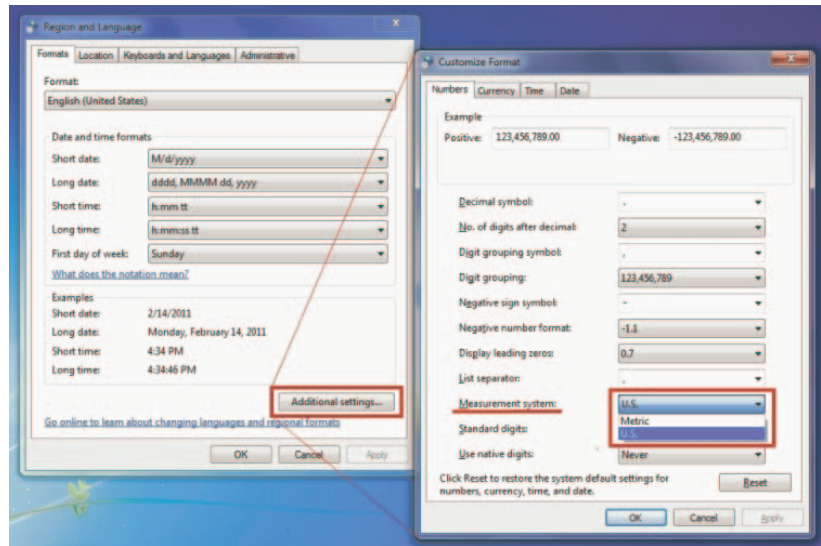
Printer Driver for Universal Print v3.13.0.0 and earlier

The “Measurement system” setting in the Windows operating system is used to determine the default paper size to be used after the driver is installed. The default paper size will be determined based on which option is selected for “Measurement system”:

- If “U.S.” is selected, Letter will be the default paper size.
- If “Metric” is selected, A4 will be the default paper size.



Windows XP

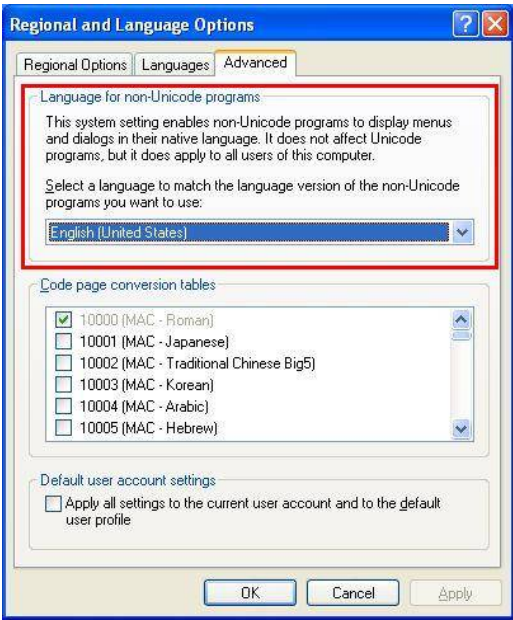


Windows 7

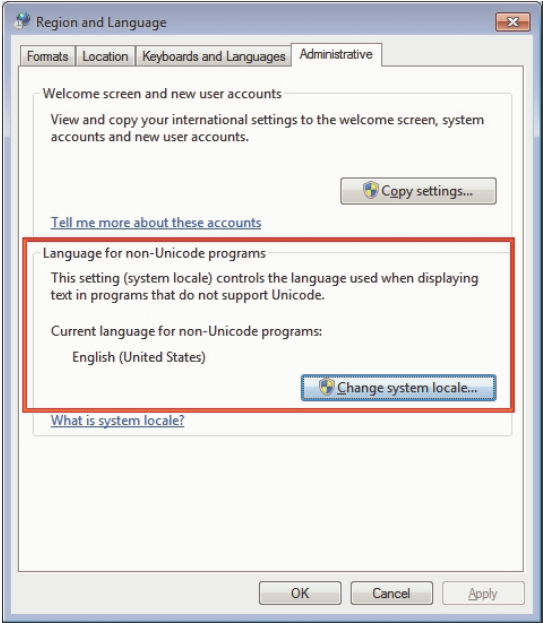
Printer Driver for Universal Print v4.0.0.0 and later

The “Language for non-Unicode programs” setting in the Windows operating system is used to determine the default paper size to be used after the driver is installed. The default paper size will be determined based on the language that is set:

- If the country of the language is in North or South America, excluding the “Portuguese (Brazil)” setting, Letter will be the default paper size.
- If the country of the language is in Europe, Asia, Oceania, or Africa, or set to “Portuguese (Brazil)”, A4 will be the default paper size.



Windows XP



Windows 7

5-3. Bidirectional Communication

5-3-1. What Is Bidirectional Communication?

PCL

PS

Bidirectional communication automatically sets up installed options and paper settings to make the driver ready to use. The driver sends an SNMP query to the printer and gets a reply from the printer that includes the necessary information to automatically configure the settings:

- Paper
 - Paper sizes in the trays
 - Installed trays
- Accessories
 - Installed options
- Job Types
 - Supported job types
- Color/B&W
 - Type of device (black & white or color)

5-3-2. Supported Ports

PCL

PS

Ports that support bidirectional communication:

- Standard TCP/IP port
 - The SNMP community name used by standard TCP/IP ports is “public” but can be changed.
- Novel iPrint Server port
 - Printer Driver for Universal Print v3.5.0.0 or later only
 - If using v3.5.0.0, the SNMP community name should be “public”.
 - If using v3.6.0.0 or later, the SNMP community name can be changed as long as the Novel iPrint client is v5.60 or later.

5-3-3. When Bidirectional Communication Will Occur

PCL

PS

v3.13.0.0 and earlier

- After Printer Properties or Printing Preferences is opened.
- After the Update Now button in the Accessories tab is clicked.

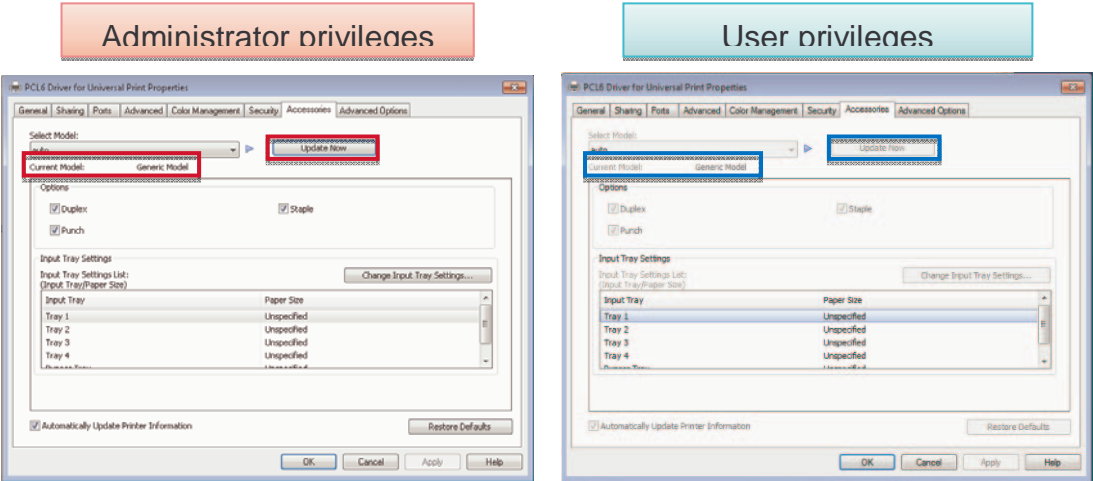
v4.0.0.0 and later

- After Printer Properties is opened.
- After the Update Now button in the Accessories tab is clicked.

By default, our universal driver will automatically establish bidirectional communication with the connected device. This allows the driver to automatically determine which options have been installed and which UI to display to users.

NOTE:

- Bidirectional communication in the user privileges environment has been eliminated as of Printer Driver for Universal Print v4.0.0.0 because it led to incompatibilities with the operating system.
- Because of this, the “Update Now” button is grayed so that users cannot switch the current model.

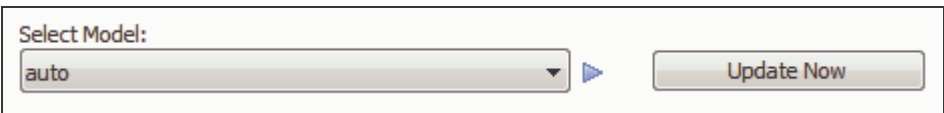


5-3-4. UI Selection via Bidirectional Communication

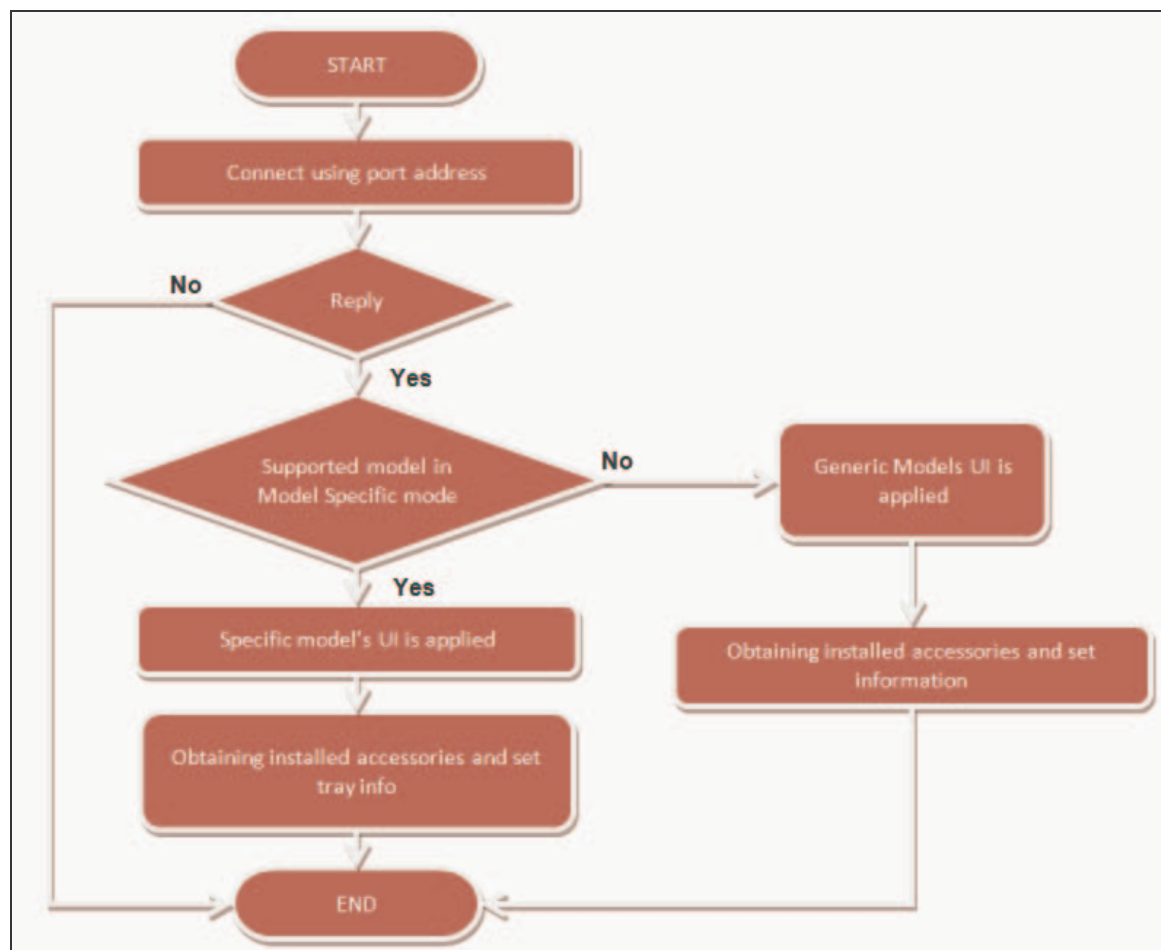
PCL

PS

“auto” is selected under “Select Model”.



Flowchart:

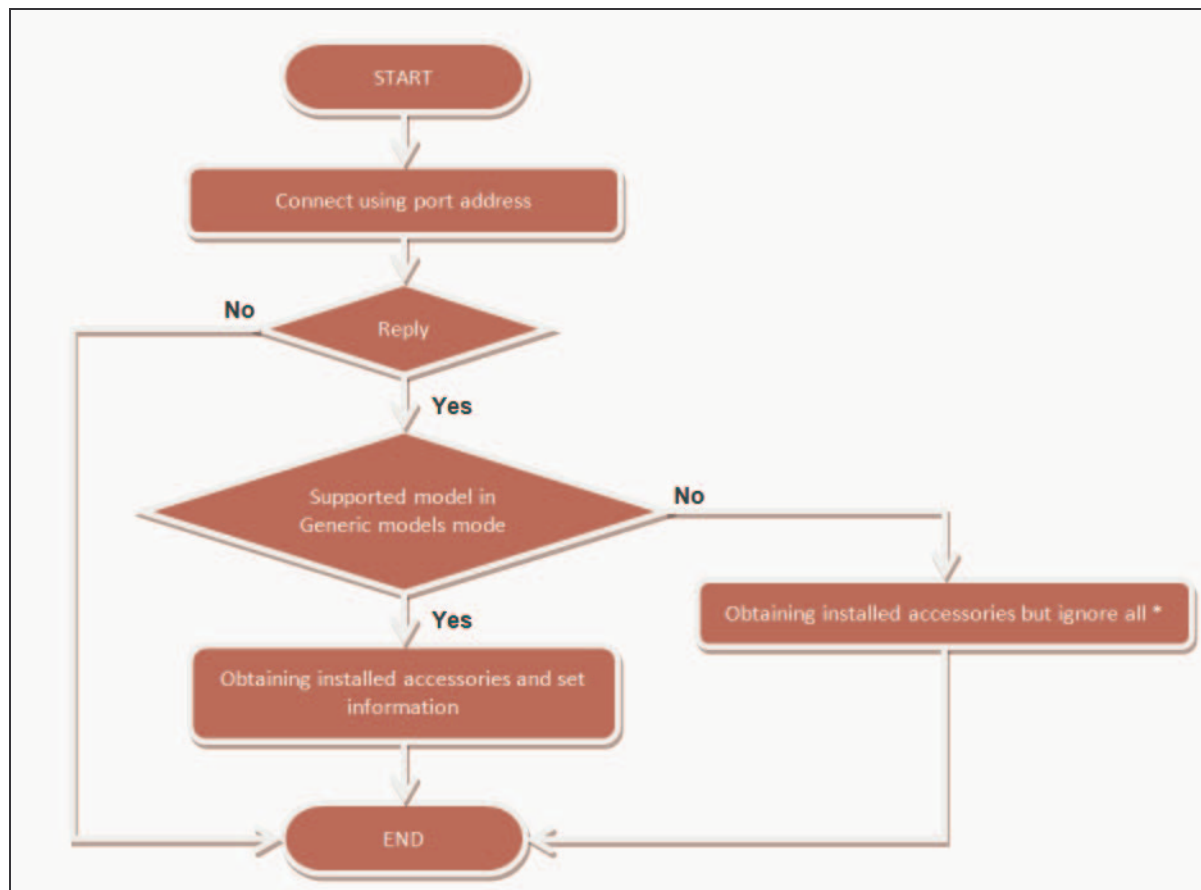


NOTE: If the driver cannot connect to a network device, the last model will be used.

“Generic Model” is selected under “Select Model”.

Select Model:
Generic Model
Update Now

Flowchart:



NOTE: Occasionally, some options in the Accessories tab might be obtained unintentionally, but these options are not supported.

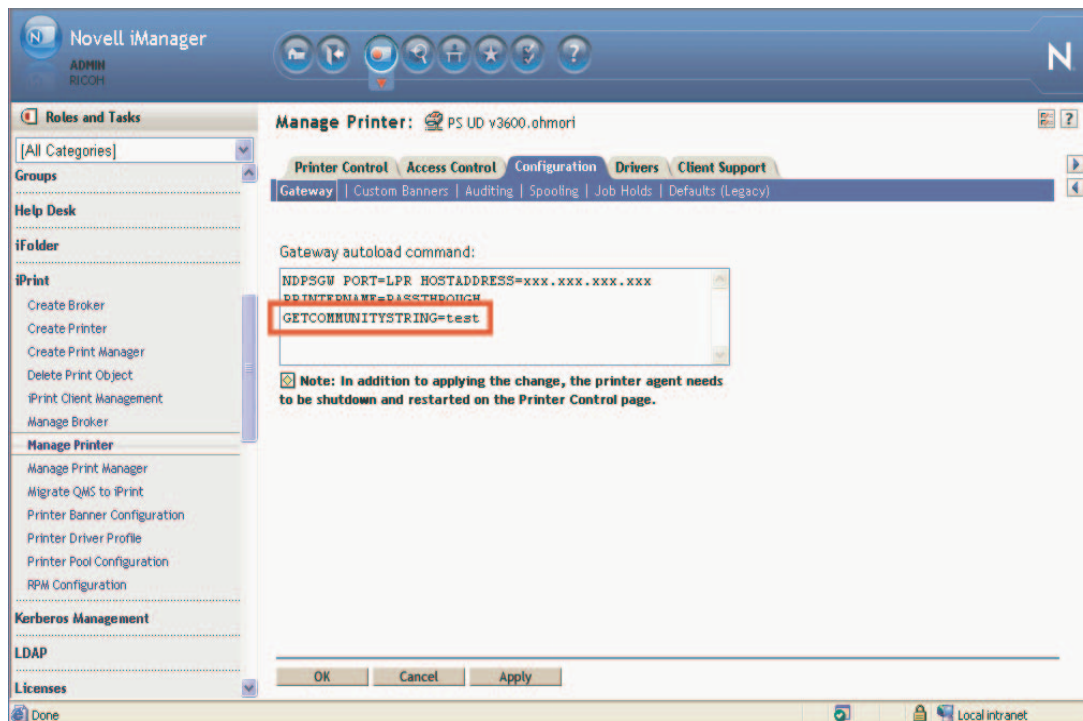
NOTES: If the driver cannot connect to a network device:

- Case 1: If the user has not changed the selected model, the last setting will be used.
- Case 2: If the user has changed the selected model from model-specific mode to Generic Model mode, then all options will be enabled in the Generic Model mode UI.

5-3-5. Configuration on the Novell iPrint Server

The following steps are for Printer Driver for Universal Print v3.6.0.0 and later versions:

1. Access Novell iManager > iPrint > Manage Printer > Configuration > Gateway
2. Add or edit "GETCOMMUNITYSTRING=XXXX" in the "Gateway autoload command" box.
3. XXXX = the SNMP Community Name



NOTES:

- iPrint Client v5.60 or later must be used to establish bidirectional communication by using an SNMP community name other than "public".
- Printer Driver for Universal Print v3.4.0.0 or earlier drivers installed by using iPrint cannot establish bidirectional communication.
- Printer Driver for Universal Print v3.5.0.0 always uses the SNMP community name "public". This cannot be changed.

5-3-6. Disabling Automatic Bidirectional Communication

PCL

PS

Bidirectional communication might not be necessary for users who always connect to the same device. Such users might prefer to disable bidirectional communication to reduce network traffic and decrease driver response time.

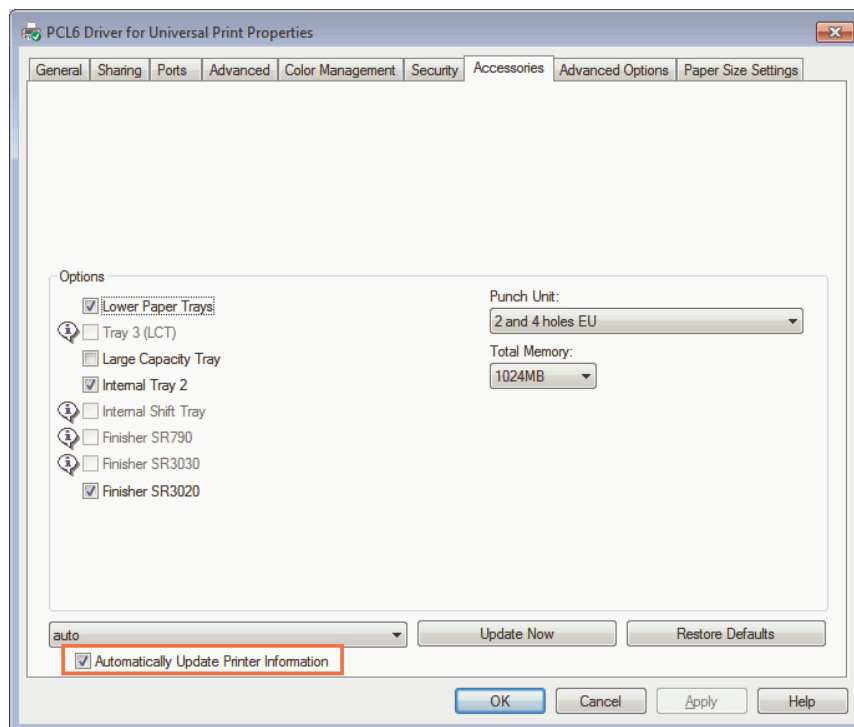
NOTE: Even if “Automatically Update Printer Information” is unchecked, bidirectional communication can be established manually by using the “Update Now” button. Unchecking “Automatically Update Printer Information” is not recommended if the driver will be used with PrinterSwitcher. Doing so could result in unexpected driver behavior and print output.

Configuring Disabling Automatic Bidirectional Communication

PCL

PS

Uncheck “Automatically Update Printer Information” in the Accessories tab. Printer Driver for Universal Print v3.3.0.0 and later supports disabling bidirectional communication.



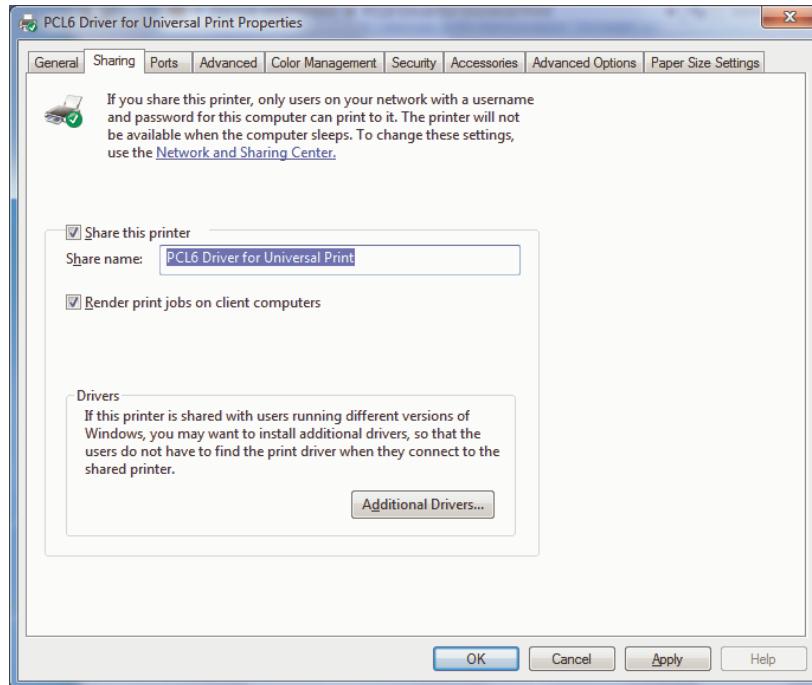
5-4. Point and Print

5-4-1. Installation on a Point and Print Server

PCL

PS

1. Create a Printer Driver for Universal Print queue with the procedure described in the “Installation and queue creation” section above.
2. Share the printer and assign it the desired privileges.
3. Install additional drivers as necessary.



5-4-2. Installation of the Printer Driver on a Point and Print Client

PCL

PS

Connect to the Point and Print server and double-click the shared printer icon. The Printer Driver for Universal Print will be automatically downloaded to the client computer via Point and Print.

NOTE: The following settings will not be inherited by Point and Print clients:

Settings	PCL6	PS
User ID	√	
User Name	√	
Password	√	
Filename	√	
User Code	√	
Login User Name	√	-
Login Password	√	-

Watermark	√	√
One Click Icons	√*	√**

*If the shared One Click Icons need to be inherited by Point and Print clients, please refer to the [“8-2-2. Shared One Click Preset Icons”](#) section regarding how to share One Click Icons.

**PCL6 Driver for Universal Print v4.0.0.0 or later

***PS Driver for Universal Print v3.7.0.0 or later

For more information, see the following articles published on the knowledgebase:

- FAQ ID:81266 – When a printer driver is installed via Point and Print, some of the server’s driver settings are not applied to the client. (#1)
- FAQ ID:81323 – When a printer driver is installed via Point and Print, some of the server’s driver settings are not applied to the client. (#2)
- FAQ ID:81337 – When a printer driver is installed via Point and Print, some of the server’s driver settings are not applied to the client. (#3)
- FAQ ID:129289 – When a printer driver is installed via Point and Print, some of the server’s driver settings are not applied to the client. (#4)

When setting up Point and Print in a Windows Server 2008 R2 or Windows 7 environment, ensure that it supports Package Awareness.

5-5. Web Point and Print

5-5-1. Configuration of the Web Point and Print Server

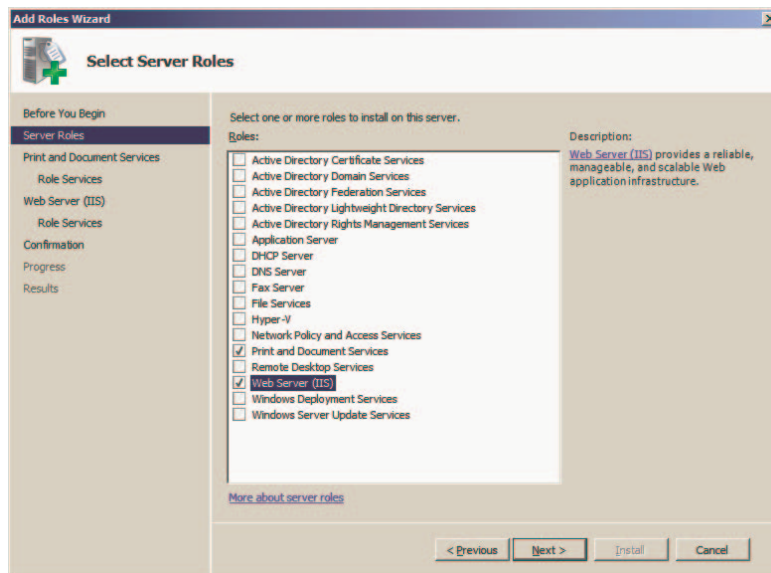
PCL

PS

Install a local print queue on the Point and Print server:

1. Open **Administrator Tools**.
2. Click **Server Manager**.
3. Select the **“Add roles”** checkbox.
4. Select the **“Print and Document Services”** and **“Web Server (IIS)”** checkboxes, and then click **Next**.

NOTE: This explanation assumes that Windows Server 2008 is being used.



5. Check the “**Internet Printing**” checkbox, and then click **Next**.
6. Click **Next** again, and then press **Install**.
7. Click **Close** to complete the installation.
8. Install printer drivers and share them with the desired permissions.

5-5-2. Installation of the Printer Driver on a Web Point and Print Client

PCL

PS

Enter “http://xxx.xxx.xxx.xxx/printers” in the address bar of a web browser. A list of shared printers should be displayed. Click the printer that needs to be installed.

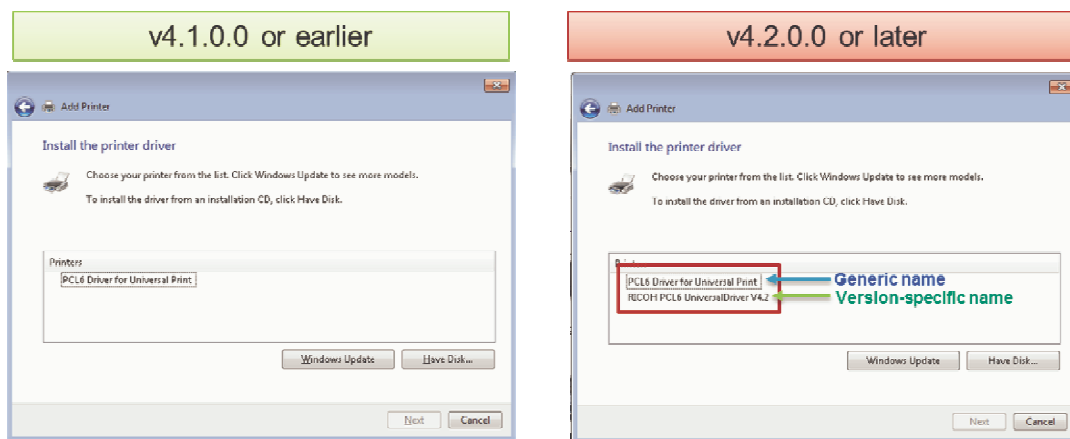
5-6. Version Management Support

5-6-1. Overview

PCL

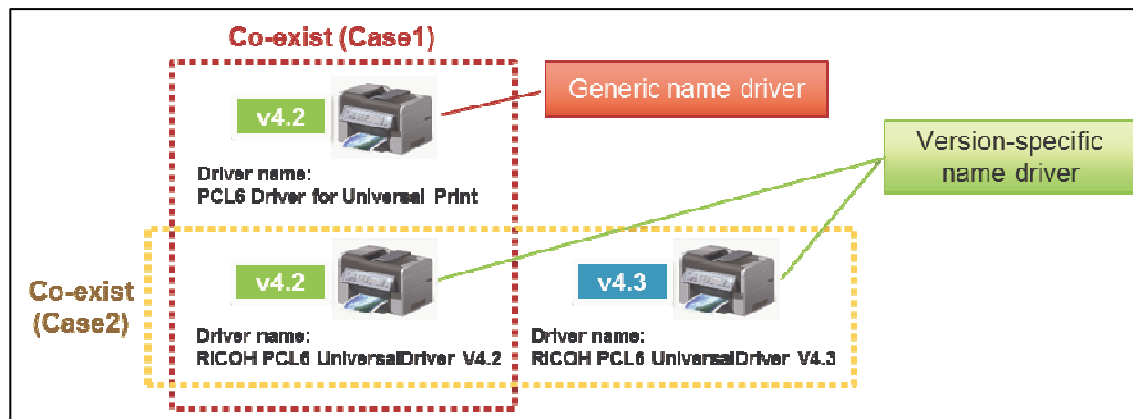
PS

As of Printer Driver for Universal Print v4.2.0.0, an older version of the driver can coexist with the newer version of the driver on a single computer. This is the same structure as HP and Xerox drivers. When installing Printer Driver for Universal Print v4.2.0.0 or later, the generic name (PCL6/PS Driver for Universal Print) or a version-specific name (RICOH PCL6/PS UniversalDriver Vx.x) can be selected from one screen.



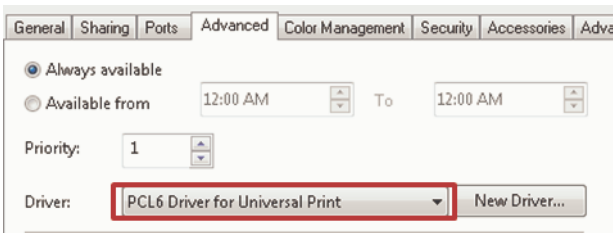
Drivers can coexist in the following combinations:

- The generic-name driver and a version-specific-name driver (Case1)
- The new version of a version-specific-name driver and the old version of a version-specific-name driver (Case2)



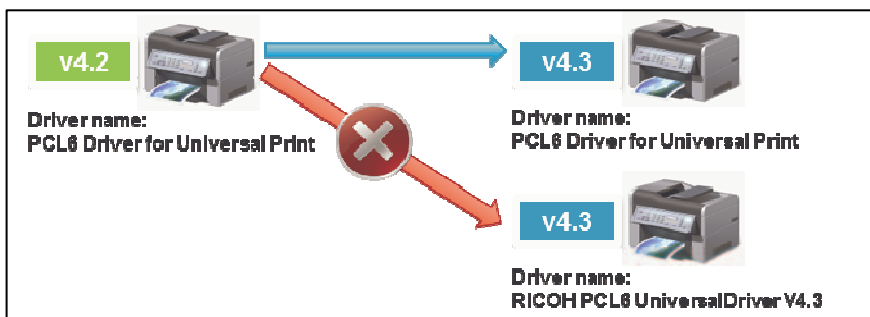
NOTES:

- Downgrading a newer version of a driver to an older version of a driver by switching the driver name in “Printer Properties > Advanced tab > Driver” is not supported.

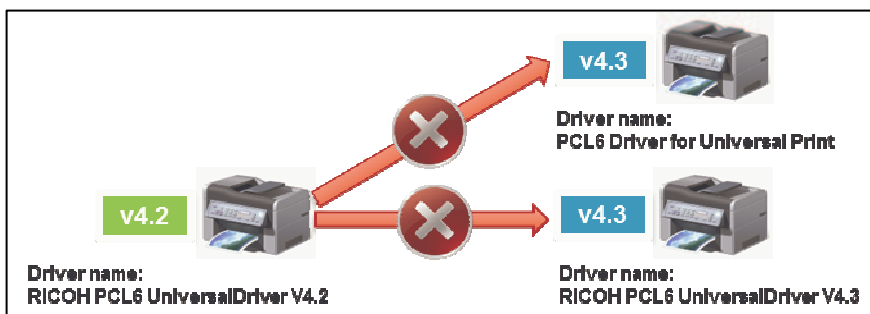


- The version-specific name of the driver cannot be upgraded to a new version of the driver by using the New Driver button because the naming between the driver with the new version-specific name and the old one is different. Therefore, if there are plans to upgrade the driver to a later version in the future, please select the driver with the generic name.

- When upgrading from the driver with the generic name:



- When upgrading from a driver with a version-specific name:

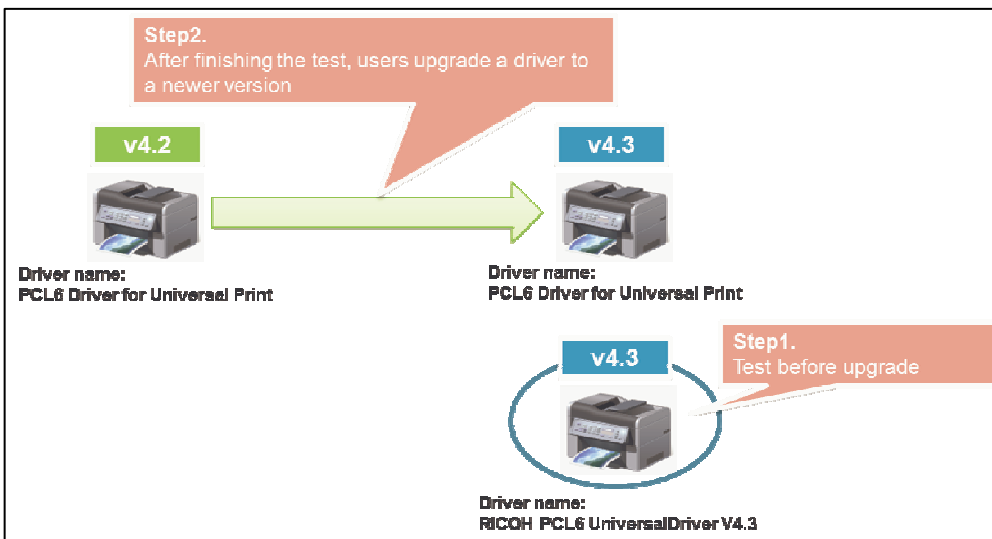


5-6-2. Benefits

There are two benefits to this method:

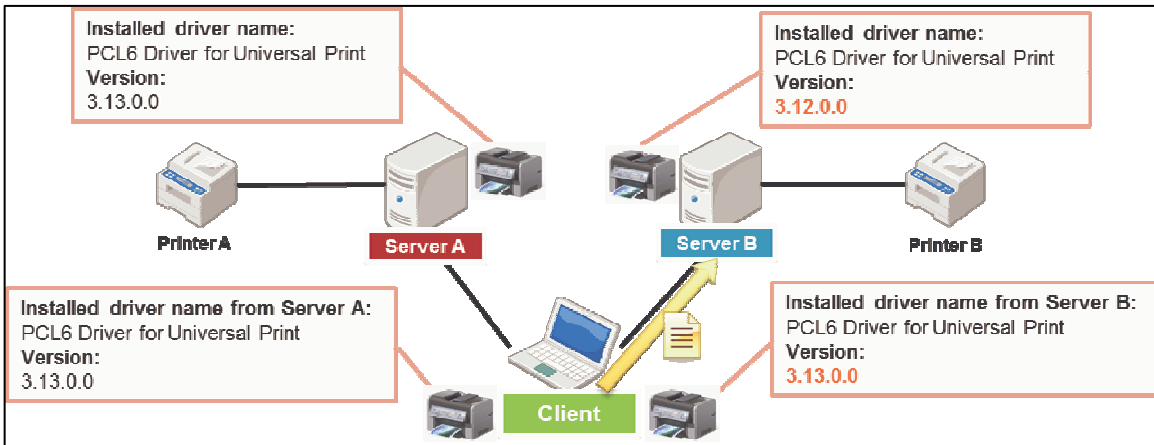
- **Benefit 1: Improvements made to the test for upgrading to a new driver**

- When conducting an operational check for updating the Printer Driver for Universal Print, users can test the newer and older versions simultaneously.

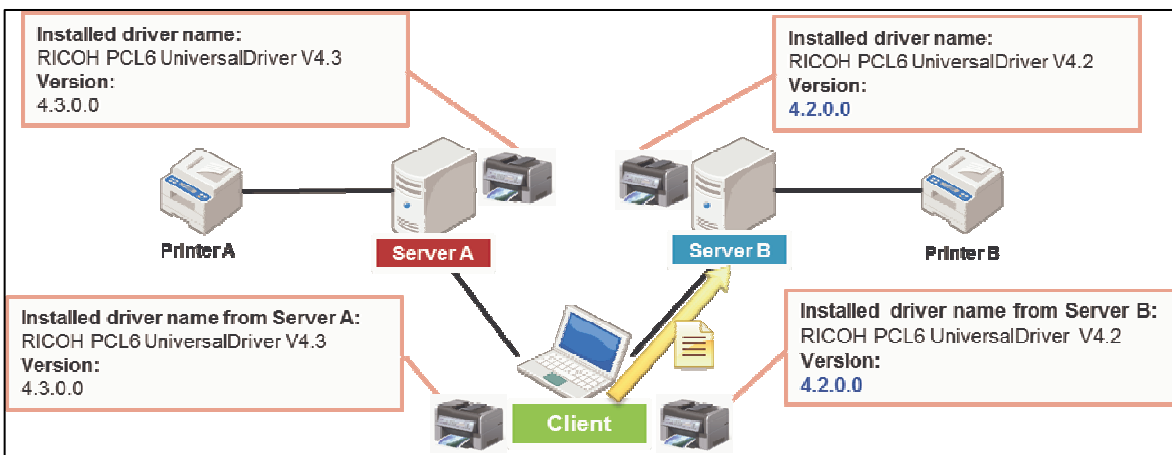


- **Benefit 2: Driver management is easier in a complex environment**

- Users can manage the drivers more easily in a complex environment, such as environment with multiple print servers.
- For example, different versions of drivers are installed on Server A (v3.13.0.0) and Server B (v3.12.0.0). When the client installs drivers on both Server A and Server B by using Point and Print, the two print queues are created on the client, but the driver itself will be installed only one that has the newest version (v3.13.0.0).
- When submitting a job by using the queue installed from Server B, a version mismatch between the client and Server B will occur and some problems, such as Normal Print being used instead of Locked Print, might occur. Therefore, users must install the same version of the driver on all servers



- If users use the version-specific name of the driver, a different version of a driver can coexist on each server and problems will not occur.
- In the following case, if the client submits a job by using the queue installed from Server B, the driver version (v4.2.0.0) installed on the client and Server B will match.



6 Upgrading

- [Best Practices](#)
- [Introducing the New Driver Button](#)

6-1. Best Practices

6-1-1. Preparation Before Upgrading

PCL

PS

- **Switching PDLs during the upgrade process is prohibited.**
- **Check the version of the Printer Driver for Universal Print that is being used.**
Ricoh supports the New Driver button, which makes it easier to update printer drivers.* However, some versions of the Printer Driver for Universal Print do not support it. To know which versions support the New Driver button, please see the corresponding table in section “[10.1 Table: Details About Upgrading Versions by Using the New Driver Button](#)” of the Appendix.
- **Evaluation onsite.**
Ricoh has evaluated upgrading the Printer Driver for Universal Print in our environments. Your environment is likely different from our environments, so we strongly recommend that you upgrade the Printer Driver for Universal Print within a test environment.

*For details about the New Driver button, please see the “[6-2. Introducing the New Driver Button](#)” section.

6-1-2. Upgrade Procedure (Stand-Alone Environment)

PCL

PS

The upgrade procedure is different depending on if the old driver and the new driver both support the New Driver button. Refer to the section “[10.1 Table: Details About Upgrading Versions by Using the New Driver Button](#)” of the Appendix and confirm if the New Driver button is supported:

- If “**No**” (unsupported):
Please see the “[Upgrading without the New Driver button](#)” section.
- If “**Yes**” (supported):
Please see the “[Upgrading with the New Driver button](#)” section.

Upgrading Without Using the New Driver Button

1. Uninstall the Printer Driver for Universal Print driver by following the same steps as described in the “[7. Uninstalling](#)” section of this document.

2. Install the new version of the Printer Driver for Universal Print driver by following the same steps as described in the [“5-1. Installation”](#) section of this document.

Upgrading with the New Driver Button

1. Open the **Printers** folder (or **Printers and Faxes**).
2. Open the **Properties** of the printer to be upgraded.
3. In the **Advanced** tab, click the **New Driver** button*, and then press **Next**.
*For details about the New Driver button, please see the [“6-2. Introducing the New Driver Button”](#) section.
4. Select **Have Disk...**, and then browse to the folder that contains the extracted printer driver INF file. Click **Open**.
5. Click **OK** and select the printer model. Press **Next**.
6. Once the installation is complete, click **Finish**.
7. Click **OK** to close the Printer Properties dialog box.
8. Log off from the current user account.

NOTE:

- When upgrading the driver, the driver names between the new version and the old one must be the same.
- If upgrading from an earlier version of the driver (v1.1.0.0 – v2.1.0.0), the upgrade procedure might result in changes to the values configured for settings such as orientation and layout.
- Upgrading from v3.0.0.0 or an earlier version to v4.0.0.0 or a later version by using the New Driver button is not supported.

If upgrading from an earlier version of the driver (v3.1.0.0 – v3.13.0.0), the upgrade procedure might result in changes to the values configured for some settings. For details, see the section [“6-2-3. Known Issues When Updating by Using the New Driver Button”](#).

6-1-3. Upgrade Procedure (Point and Print Environment)

PCL

PS

Windows Server and Windows Clients

On the server-side, upgrade the Printer Driver for Universal Print. The upgrade process is the same as the one for [“6-1-2. Upgrade procedure \(stand-alone environment\)”](#)

To replace an x86 print driver on an x64 server (and vice versa), the following should be done:

1. Open the **Devices and Printers** folder.
2. Select any print queue and open the **Print Server Properties**.
3. Select the **Drivers** tab.
4. Click **Add** to install the new version of the x86 driver.

Microsoft Failover Cluster

There are two methods for upgrading drivers in a Microsoft Cluster Server environment:

- **Each physical node:**

Upgrade the Printer Driver for Universal Print on the shared disk from each of the physical nodes. The upgrade process for the New Driver button is the same as the one for [“6-1-2. Upgrade procedure \(stand-alone environment\)”](#).

- **Virtual printers:**

Upgrade the Printer Driver for Universal Print on the shared disk from the client computer remotely.

1. Click the “Start” button, Select “Run”, and type the following:
\\Virtual Server Name
2. Open the “Printers” folder.
3. Upgrade the Printer Driver for Universal Print. The upgrade process for the New Driver button is the same as the one for the client machine.

Citrix Environment

The upgrade procedure is different for each printing method in the Citrix environment. Please confirm your printing case and perform the appropriate procedure:

Printing Case	Location	Method
Case (a)	Citrix Server	Same as the case for “6-1-2. Upgrade procedure (stand-alone environment)” section.
Case (b)	Client	Same as the case for “6-1-2. Upgrade procedure (stand-alone environment)” section.
	Citrix Server	Same as the case for “6-1-2. Upgrade procedure (stand-alone environment)” section.
Case (c)	Client	This case is not supported.
Case (d)	Print Server	Same as the case for “6-1-3. Upgrade procedure (Point and Print environment) -Windows Server and Windows clients-” section.
	Citrix Server	Same as the case for “6-1-2. Upgrade procedure (stand-alone environment)” section.
Case (e)	Print Server	This case is not supported.
Case (f)	Print Server	Same as the case for “6-1-3. Upgrade procedure (Point and Print environment) -Windows Server and Windows clients-” section.
	Citrix Server	Same as the case for “6-1-2. Upgrade procedure (stand-alone environment)” section.
Case (g)	Print Server	Same as the case for “6-1-3. Upgrade procedure (Point and Print environment) -Windows Server and Windows clients-” section.
Case (h)	Print Server	Same as the case for “6-1-3. Upgrade procedure (Point and Print environment) -Windows Server and Windows clients-” section.

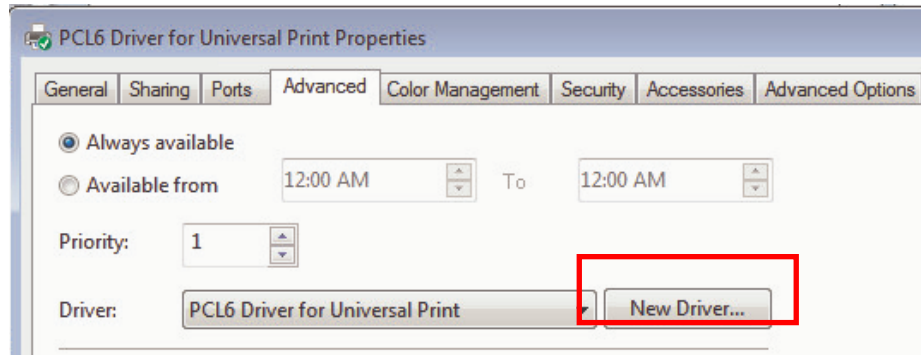
References:

- Case (a): Using the Server Local Printer
- Case (b): Client Printing Pathway: Using the Auto-Created Client's Local Printer (Ricoh Driver)
- Case (c): Client Printing Pathway: Using the Auto-Created Client's Local Printer (Citrix UPD)
- Case (d): Client Printing Pathway: Using the Auto-Created Client's Network Printer (Ricoh Driver)
- Case (e): Client Printing Pathway: Using the Auto-Created Client's Network Printer (Citrix UPD)

- Case (f): Network Printing Pathway: Using the Auto-Created Client's Network Printer (Ricoh Driver)
- Case (g): Network Printing Pathway: Using the Citrix Server's Network Printer (Session Printer)
- Case (h): Network Printing Pathway: Using the Citrix Server's Network Printer (Manual Point and Print)

6-2. Introducing the New Driver Button

The Printer Driver for Universal Print supports upgrading a printer driver via the New Driver function.



NOTE: Some versions do not support the New Driver button. Refer to the section [“10.1 Table: Details About Upgrading Versions by Using the New Driver Button”](#) in the Appendix and check if the New Driver button is supported.

6-2-1. Advantage of Using the New Driver Button

PCL PS

When updating the driver by using the New Driver button, users can update all instances of the driver (not just the current queue) without losing the queue configuration. This can be critical in situations where there are many queues that use the same driver, such as on a print server.

6-2-2. New Driver Button Support for Do-It-Yourself Customized Drivers

PCL PS

The settings of the old driver will be inherited to the newer version. However, the customizations of the old driver will be retained after upgrading.

Example:

Old Driver	New Driver	Result
Standard driver Layout = 16 pages per sheet (set from the printing preferences)	Customized driver Layout = 4 pages per sheet , unlocked	Layout = 16 pages per sheet
Customized driver Layout = 2 pages per sheet, locked	Standard driver	Layout = 2 pages per sheet, locked
Customized driver A Color/Black & White = Black & White, locked	Customized driver B 2 sided = Long Edge Bind (Open to Left/Top), locked	Color/Black & White = Black & White, locked

NOTE: “Customized driver” is referring to a driver customized by using Printer Driver Packager NX.

6-2-3. Known Issues When Updating by Using the New Driver Button

Some Settings Cannot Be Inherited

PCL

PS

When updating from v3.1.0.0 to v3.13.0.0 of the Printer Driver for Universal Print to v4.0.0.0 or later of the Printer Driver for Universal Print by using the New Driver button, some settings cannot be inherited.

Settings		Support	
		PCL6	PS
Document Property	Devmode	Yes	No**
	Watermark	No	No
	User ID	Yes	Yes
	Password	Yes	Yes
	User Code	Yes	Yes
	User Name	Yes	Yes
	File Name	Yes	Yes
	Login User Name	Yes	-
	Login Password	Yes	-
	OneClick Icon	No	No
Printer Property	Current Model	Yes*	Yes*
	Model Selection	Yes*	Yes*
	Accessories	Yes	Yes
	Advanced Options	Yes	Yes
	Input Tray Settings	Yes	Yes
	Driver encryption	Yes	-

*If the newer Printer Driver for Universal Print does not have the specific model's file, Generic Model mode will be applied.

**The following settings for PS Driver for Universal Print will be inherited.

Duplex, ColorBW, Orientation, Resolution, Copies, ReverseOrder, EMFSpool, PSErrorhandler, PSLanguageLevel, PSOutputOption, TrueTypeFont, Mirroring, TrueTypeFont, Download

NOTE: If the new driver package is customized to change the default setting, the values of this customization will be applied when updating the driver. This is an irregular case. Basically, the value of an older, customized driver package will be inherited. For details, please refer to the [“6-2-2. New Driver button support for do-it-yourself customized drivers”](#) section.

Resetting of the Settings in a File Might Occur**PCL****PS**

If the file, such as a Microsoft Excel spreadsheet, has the settings information (public Devmode) that uses Printer Driver for Universal Print v3.13.0.0 or earlier, these settings might be reset or replaced with the default settings value.

PCL

Target settings include:

- Paper size
The only affected size is 148 x 200 mm. This size might be replaced by 10" x 14".
- 2-sided
The value maintained by an application might be reset and the default value of the PCL6 Driver for Universal Print v4.x will be applied.

PS

Target settings include:

- Paper size
The following paper sizes might be replaced with A4 or Letter (the printer driver's default) when printing with PS Driver for Universal Print v4.0.0.0 or later.

➤ 100 x 148 mm	➤ B1	➤ 8.25" x 14"	➤ 226 x 310 mm	➤ Com10 Env.
➤ 148 x 200 mm	➤ B2	➤ 8" x 10"	➤ 310 x 432 mm	➤ Monarch Env.
➤ 182 x 210 mm	➤ B3	➤ 8" x 10.5"		➤ C5 Env.
➤ 170 x 210 mm	➤ B4	➤ 5.5" x 8.5"		➤ C6 Env.
➤ 210 x 340 mm	➤ B5	➤ 11" x 17"		➤ DL Env.
	➤ B6			
- 2-sided
The value maintained by an application might be reset.
- Input tray
When specifying the large-capacity tray (LCT) by using PS Driver for Universal Print v4.x, Auto Tray Select might be adopted

7 Uninstalling

Close all applications before uninstalling the Printer Driver for Universal Print.

PCL

PS

Windows 7, Windows 8, Windows 8.1, Windows Server 2008 R2, Windows Server 2012 and Windows Server 2012 R2

1. Close all applications.
2. Open the **Printers** (or **Devices and Printers**) folder.
3. Delete the printer icon corresponding to the driver that will be uninstalled.
4. From the Print Server Properties, click the **Change Driver Settings** button.
5. Open the **Drivers** tab.
6. Select the driver to be uninstalled.
7. Press **Remove**.
8. Select **"Remove driver and driver package"**.
9. Log off from the current user account or restart the computer.

Windows Vista and Windows Server 2008

1. Close all applications.
2. Open the **Printers** (or **Printers and Faxes**) folder.
3. Delete the printer icon corresponding to the driver that will be uninstalled.
4. Right-click in the Printers folder and select **"Run as Administrator"**.
5. From the Print Server Properties, navigate to the **Drivers** tab.
6. Select the driver to be uninstalled.
7. Press **Remove**.
8. Select **"Remove driver and driver package"**.
9. Log off from the current user account or restart the computer.

Windows XP and Windows Server 2003

1. Close all applications.
2. Open the **Printers** folder (or **Printers and Faxes**).
3. Delete the printer icon corresponding to the driver that will be uninstalled.
4. From the Print Server Properties, navigate to the **Drivers** tab.
5. Select the driver to be uninstalled.
6. Press **Remove**.
7. Log off from the current user account or restart the computer.

8 Printing Features

- [Spool Format](#)
- [One Click Preset Icons](#)
- [Job Setup](#)
- [Gray Reproduction](#)
- [Paper Type Selection in Microsoft Word](#)
- [Job Type](#)
- [Printing Features for the Aficio SP 4400S/4410SF/4420SF](#)
- [Support for the Aficio SP 3500SF/3510SF and 3500N/3510DN](#)
- [Support for the SP C250SF/C252SF and the SP C250DN/C252DN](#)
- [PCL6 Mode](#)

8-1. Spool Format

PCL

PS

Printer Driver for Universal Print supports the following spool format.

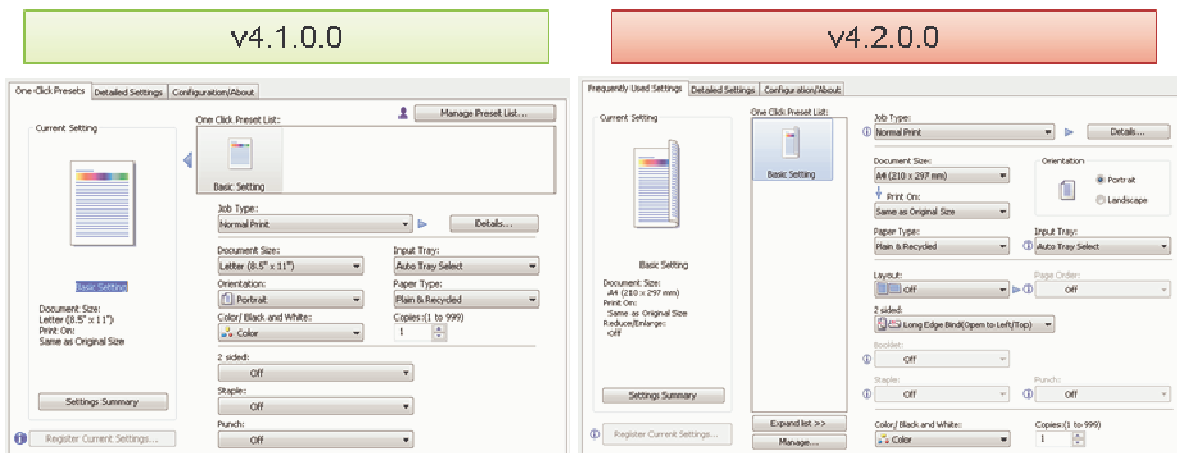
Spool Format	PCL6	PS
RAW	√	√
EMF		√

8-2. One Click Preset Icons

PCL

PS

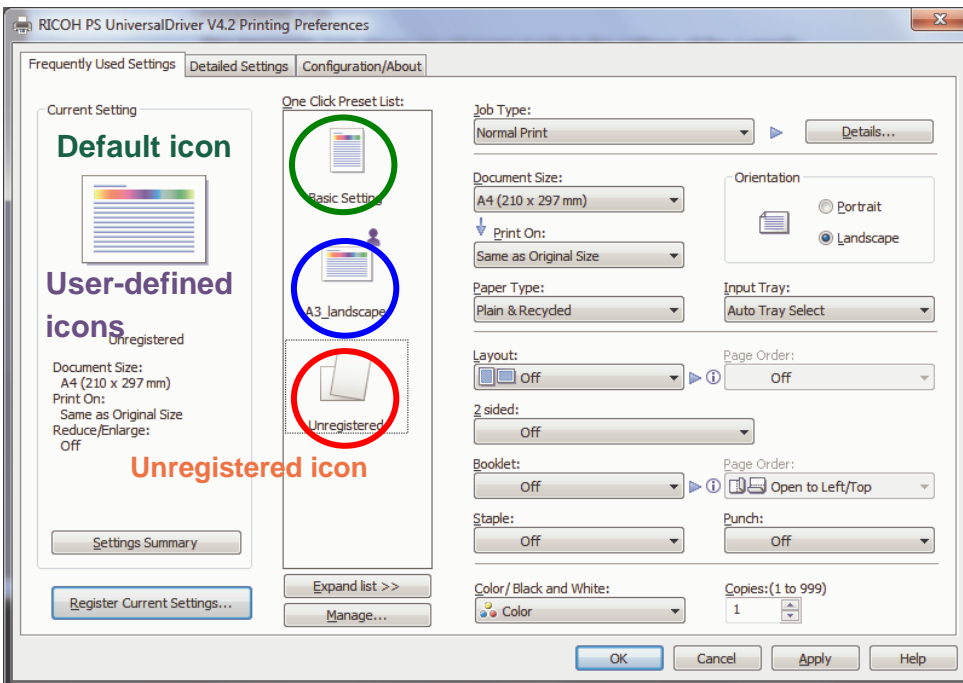
As of Printer Driver for Universal Print v4.2.0.0, the one-click UI has been improved to allow frequently used functions—such as staple, duplex, or punch—to be configured in the default print settings. In addition, it will be easier to set functions when the scrollbar is eliminated from the Detailed Settings tab.



- The driver can store up to 32 One Click Presets.
- The icon's appearance changes to reflect the selected features.
- When a One Click Preset is selected, the settings in each of the tabs changes to reflect the settings that are stored in that icon.
- Not all settings can be stored in a One Click Preset. These settings will be listed in a later section.

Printer Driver for Universal Print has One Click Preset icons. These can be used to store sets of frequently used settings:

- **Default Preset icon (Basic Setting).** This is created upon installation of the driver and contains the PS Driver for Universal Print's default settings.
- **User-defined Preset icons.** Users can add/remove preset icons as necessary.
- **Unregistered icon.** This temporary icon stores any changes made to the settings of the currently selected One Click Preset icon.

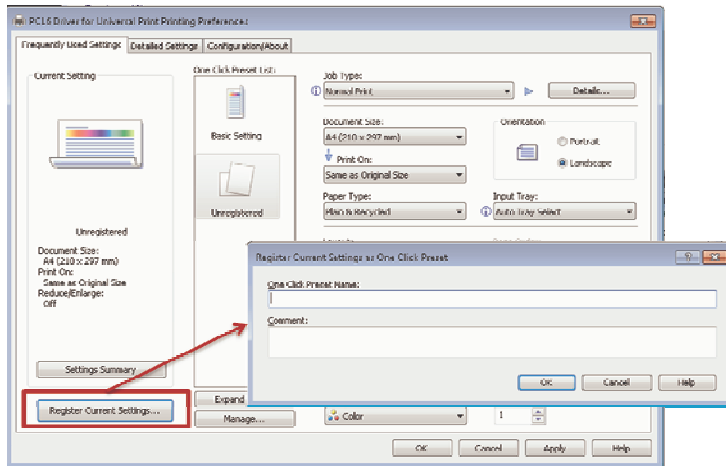


NOTE: Printer Driver for Universal Print* can share the One Click Presets that are created by an administrator, with Point and Print clients. For details, please see the “Sharing One Click Presets between administrators and users” section.

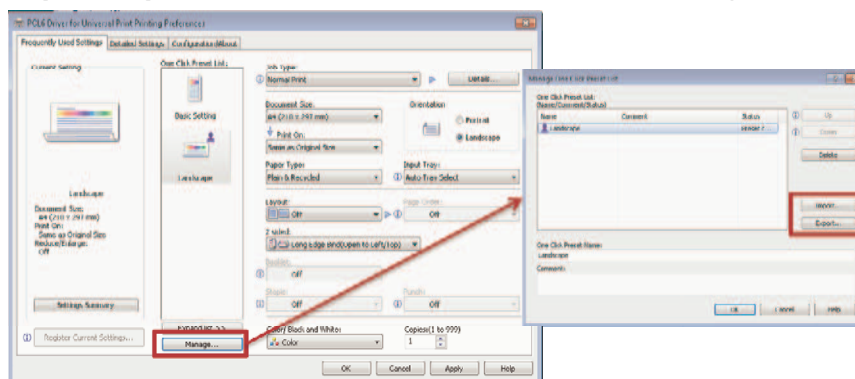
*PCL6 Driver for Universal Print v4.0.0.0 or later, or PS Driver for Universal Print v3.7.0.0 or later.



One Click Presets can be created by clicking the “Register Current Settings” button.



- **Register Current Settings as a One Click Preset:** The currently configured settings can be registered as a One Click Preset. The name used for the One Click Preset can contain up to 64 characters. The comment can be up to 256 characters.
- **Settings Summary button:** Displays a list of current print settings.
- **Manage...:** The order in which the One Click Presets are displayed. The One Click Preset Name and Comment fields can be modified here.
- **Apply and OK buttons:** The OK button stores the current settings and closes the window. The Apply button stores the current settings but does not close the window.
- **Import/Export functions:** One Click Presets can be imported or exported as a JSON file.



PCL

This function can be used instead of the Save/Load function in PCL6 Driver for Universal Print v3.13.0.0 and earlier.

8-2-1. Settings That Cannot Be Stored as One Click Presets

PCL

PS

The following settings cannot be stored as One Click Presets:

- User ID Text
- Password
- User Name
- File Name
- User Code
- Classification Code
- Login User Name Text
- Login Password
- Watermark items except "Watermark name" and "Print Watermark (ON/OFF)"
- Folder Password

8-2-2. Shared One Click Preset Icons

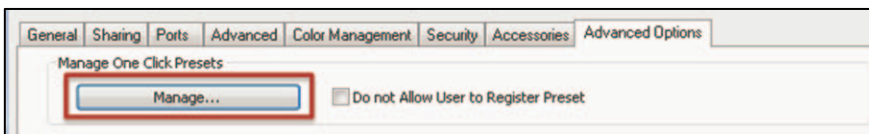
PCL

PS

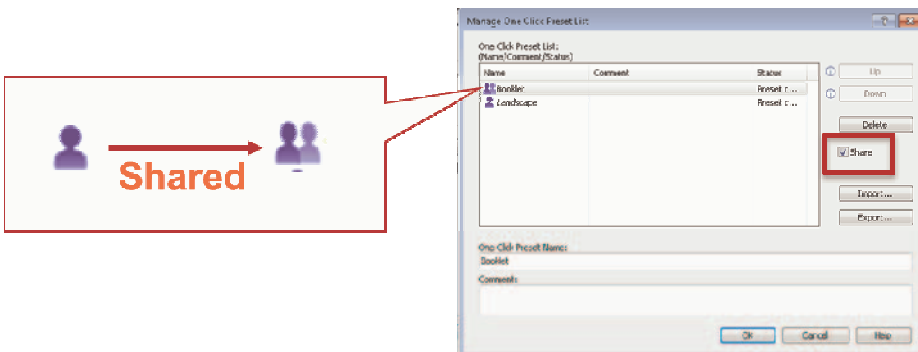
One Click Preset Icons created on a print server can be shared with Point and Print clients. One Click Preset Icons created by an administrator can also be shared with all local users.

Sharing One Click Presets:

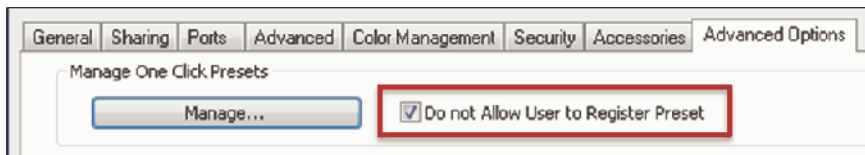
1. From Print Server Properties, navigate to the **Advanced Options** tab and click the **Manage...** button.



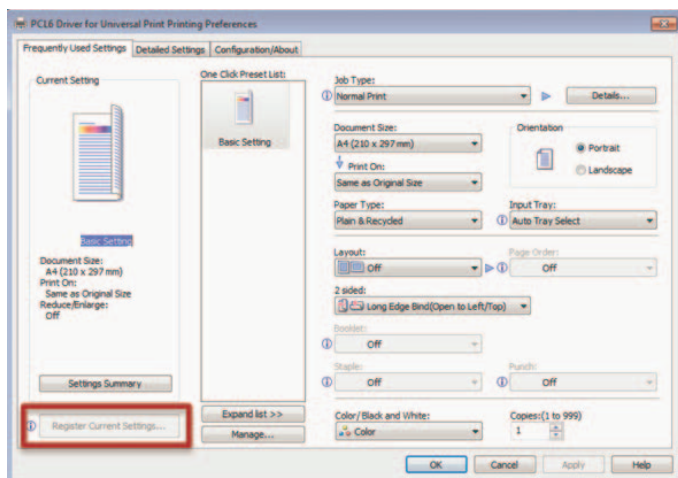
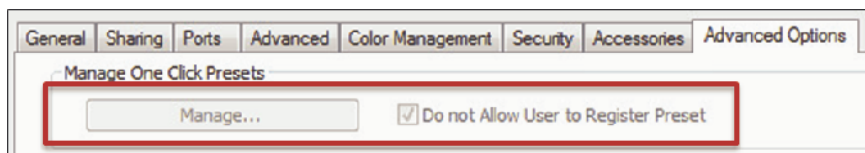
2. Select the icons to be inherited by clients.



3. Lock the One Click Preset icons by checking **“Do not Allow User to Register Preset”**.



4. After this setting is enabled (checked), this is what users without administrative privileges should see:



8-3. Job Setup**PCL****PS**

When using Printer Driver for Universal Print v4.1.0.0 or earlier, If the User ID for the Windows Login Name includes invalid characters, the User ID entered will be "unknown".

As of Printer Driver for Universal Print v4.2.0.0 or later, If an invalid character is included after the second character of the User ID for the Windows Login Name, the User ID entered is the string of characters just before the invalid character.

Printer Driver for Universal Print v4.1.0.0 and earlier

If the User ID for the Windows Login Name includes invalid characters, the User ID entered will be "unknown".

As of Printer Driver for Universal Print v4.2.0.0

- If the first character of the User ID for the Windows Login Name is an invalid character, the User ID entered will be "unknown".
- If an invalid character is included after the second character of the User ID for the Windows Login Name, the User ID entered is the string of characters just before the invalid character.

Windows Login Name (Examples)	Version of Printer Driver for Universal Print	
	v4.1.0.0 and Earlier	v4.2.0.0 and Later
"-123"	"unknown"	"unknown"
"123-"	"unknown"	"123"
"123-456"	"unknown"	"123"

8-4. **Gray Reproduction**

PCL

PS

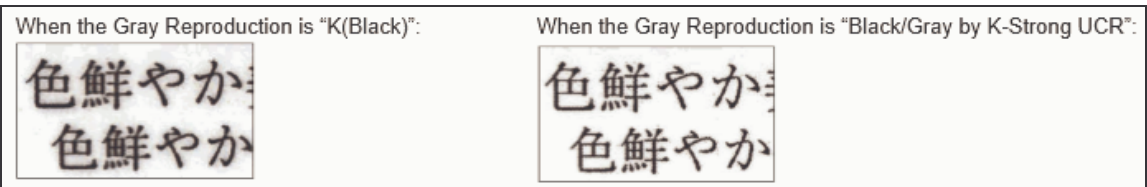
This function can select the appropriate printing method to be used for black and gray areas of a document. The Generic Model mode does not have this function.

		Print Results		
		Text	Graphics	Images
Gray Reproduction (Text/Line Art)	K (Black)	If R=G=B, use K		Use CMYK
	CMY + K	Use CMYK		
	K (Black) per Page	If R=G=B, use K*		
	Black/Gray by K-Strong UCR	If R=G=B, use K*		

*If there is even one object (text, graphics, or image) that is not R=G=B, all images will be printed by using CMYK toners. Objects that are considered R=G=B for the “Black/Gray by K-Strong UCR” option will use less CMY toner than “K(Black) per Page”.

NOTE: Difference between “K (Black) per Page” and “Black/Gray by K-Strong UCR”

Previously, when printing scanned text, graphics, and/or images, the result was blurry. However, “Black/Gray by K-Strong UCR” will print more clearly.

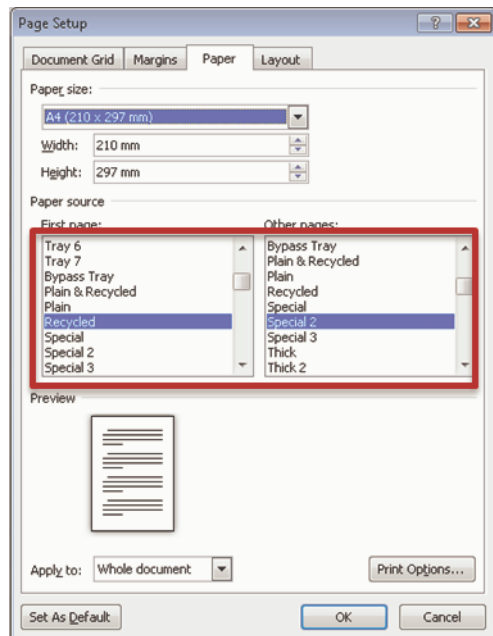


8-5. Paper Type Selection in Microsoft Word

PCL

PS

By using Printer Driver for Universal Print v4.4.0.0 or later, the paper type can be selected from “Page Setup” in Microsoft Word.



Even if a user does not know which tray has the paper type that he or she would like to print on, the expected paper type can be fed from the tray by selecting the paper type from “Page Setup” in Microsoft Word.

8-6. Job Type

PS

To select the Windows Login Name as the user ID, the EMF Spool option needs to be disabled. When using PS Driver for Universal Print v4.4.0.0 or later, the Windows Login Name can be selected as the user ID regardless of the EMF spool setting.

- **PS Driver for Universal Print v4.3.0.0 and earlier**

The Windows Login Name cannot be selected as the user ID if the “Spool Data in EMF Format” option is enabled.

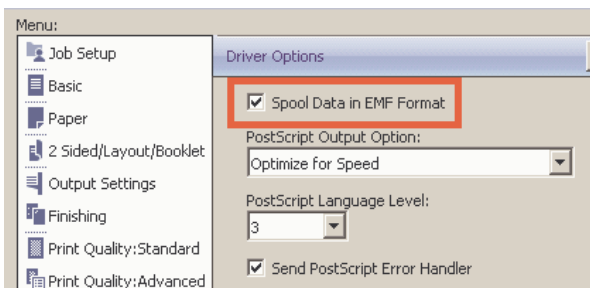
- **PS Driver for Universal Print v4.4.0.0 and later**

The Windows Login Name can be selected as the user ID regardless of the “Spool Data in EMF Format” option setting.

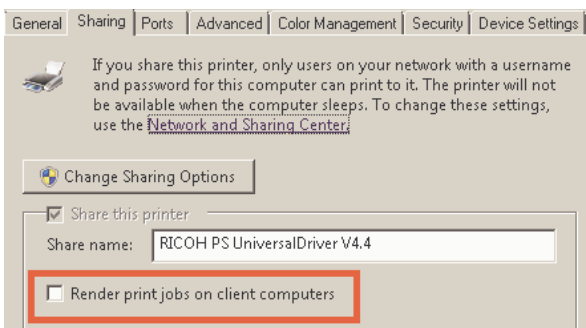
Limitations

When selecting the Windows Login Name as the user ID in Point and Print–client environment, the server's Windows Login Name will be used if the EMF spool setting is enabled with the server-side-rendering setting:

- **EMF spool:** “Spool Data in EMF Format” in the Printing Preferences is enabled.



- **Server-side rendering:** “Render print jobs on client computers” in the Printer Properties is set to OFF.



To avoid this, either of the following workarounds are applicable:

- ✧ Disable “Spool Data in EMF Format” in the Printing Preference so that RAW spool is used.
- ✧ Enable “Render print jobs on client computers” within the Printer Properties, which enables client-side-rendering.

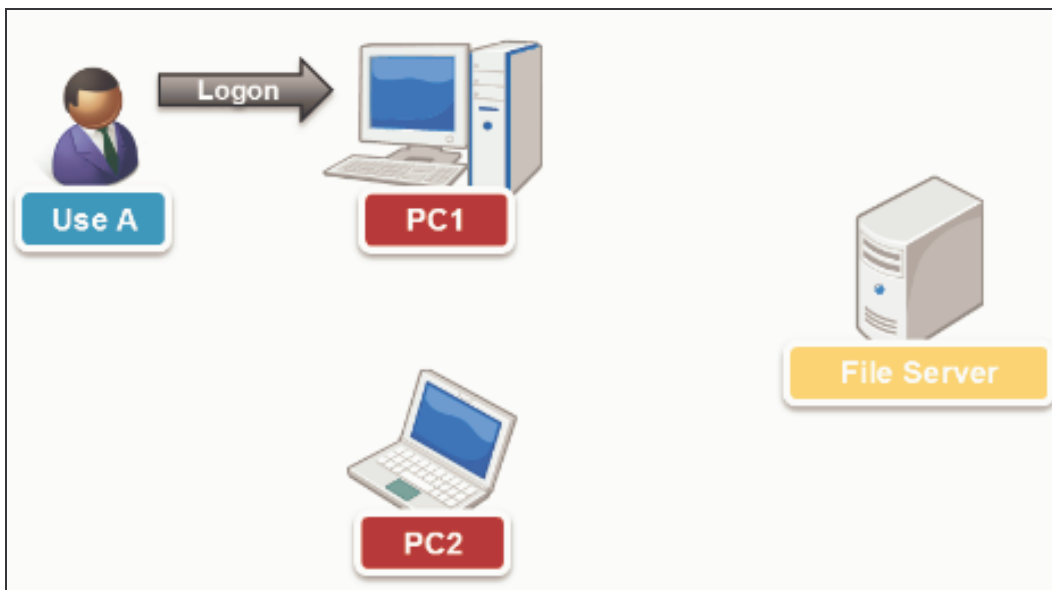
8-7. Roaming User Profiles

8-7-1. Overview

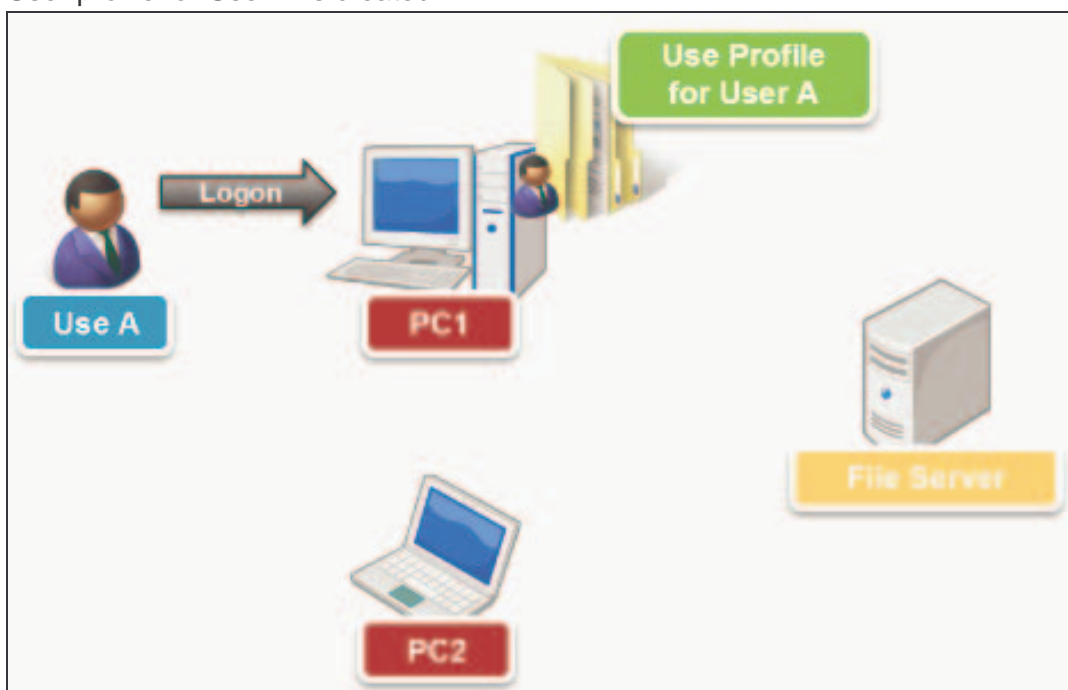
As of Printer Driver for Universal Print v4.5.0.0, Roaming User Profiles are supported. With Roaming User Profiles, user-defined One Click Icons and watermarks are retained if users log on to another computer. The following is an example of a Roaming User Profiles environment:

Example:

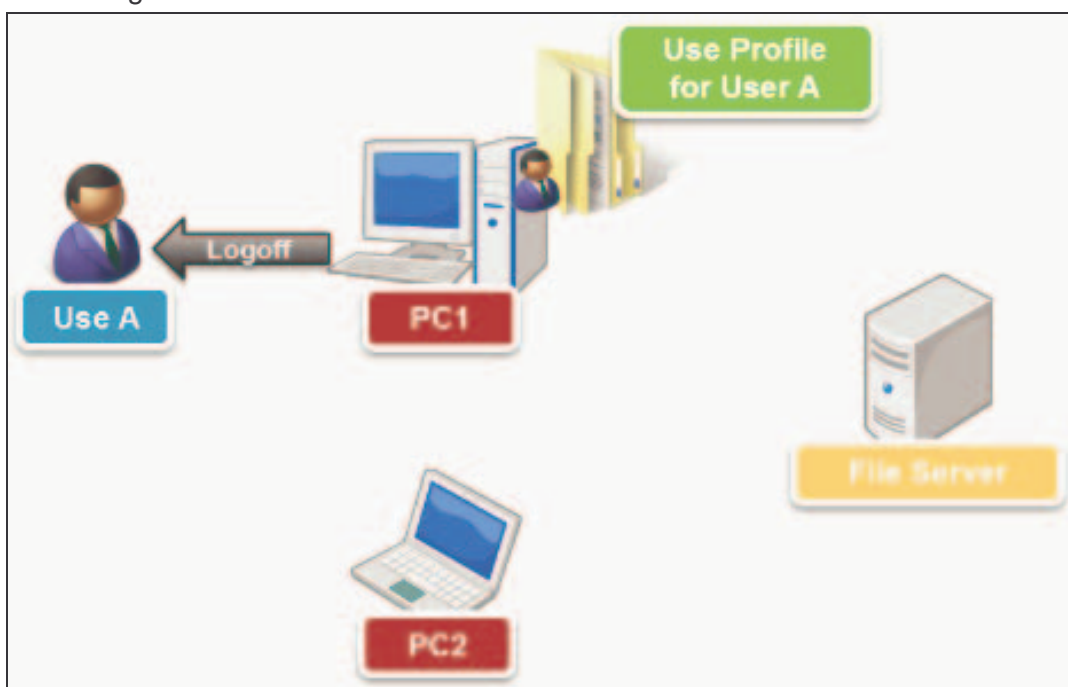
1. User A logs on to PC1.



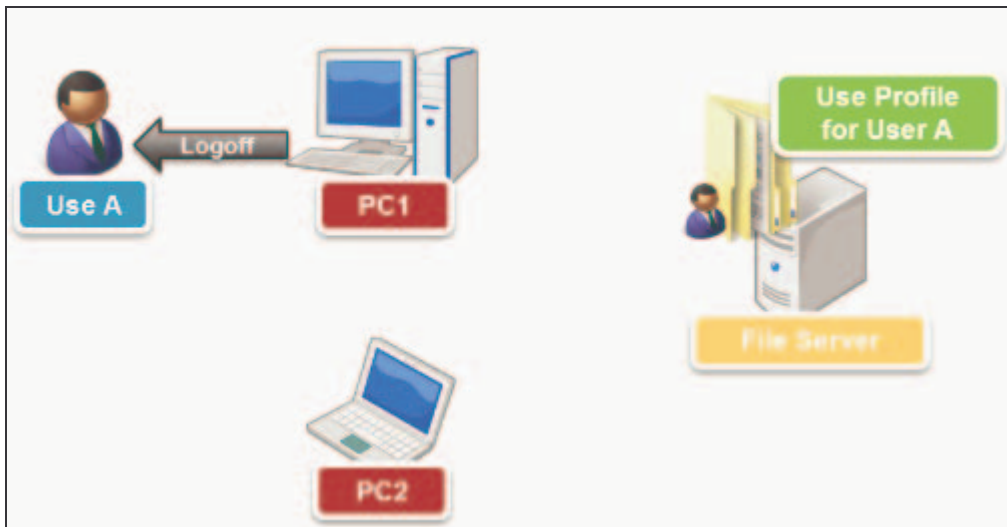
2. User profile for User A is created.



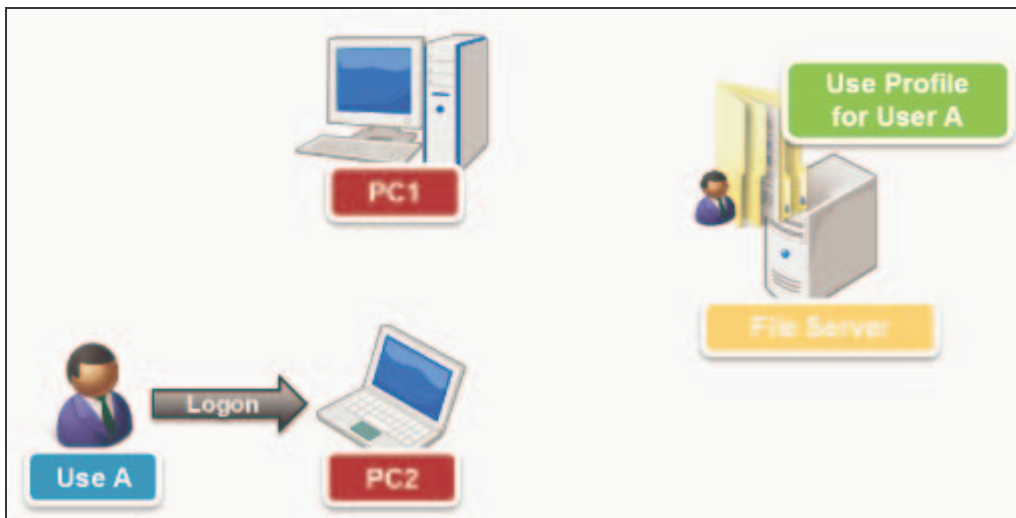
3. User A logs off from PC1.



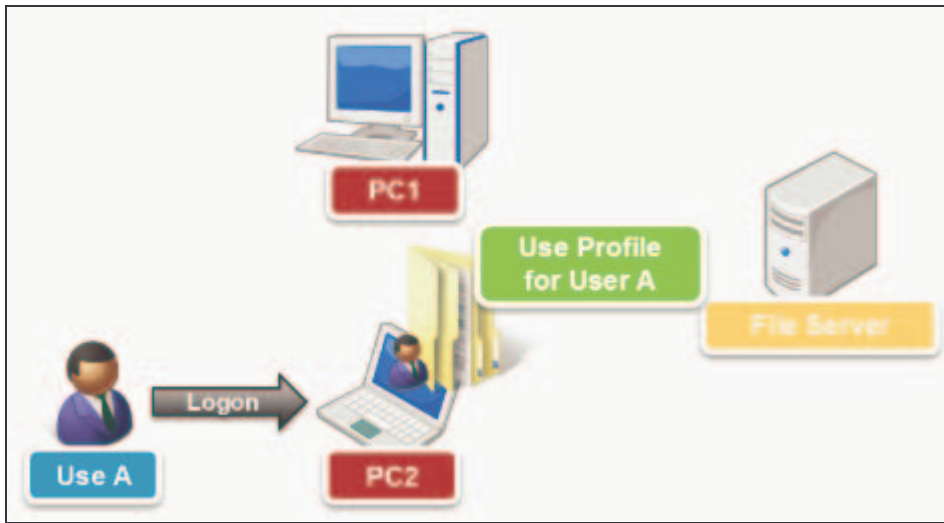
4. User profile is saved on the file server.



5. User A logs on to PC2.



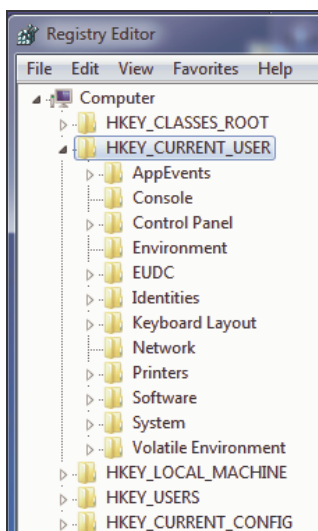
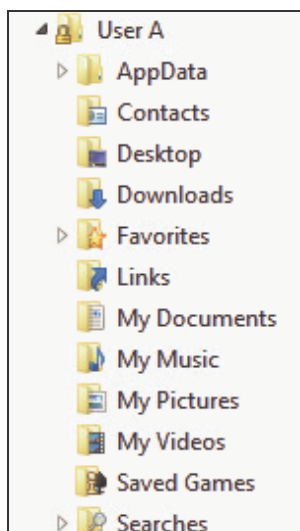
6. User Profile is called and applied to PC2.



8-7-2. Specifications

A user profile consists of the following information:

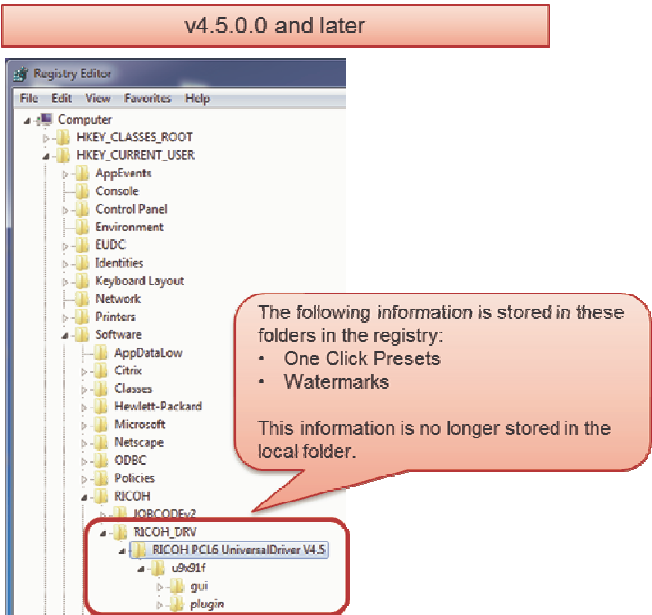
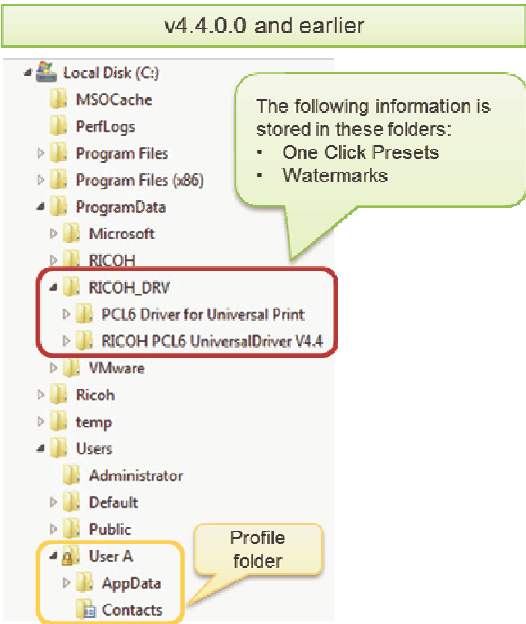
- **Profile folder**
C:\Users\<username>
- **Registry**
HKEY_CURRENT_USER



Reference: [http://technet.microsoft.com/en-us/library/cc775560\(v=ws.10\).aspx](http://technet.microsoft.com/en-us/library/cc775560(v=ws.10).aspx)

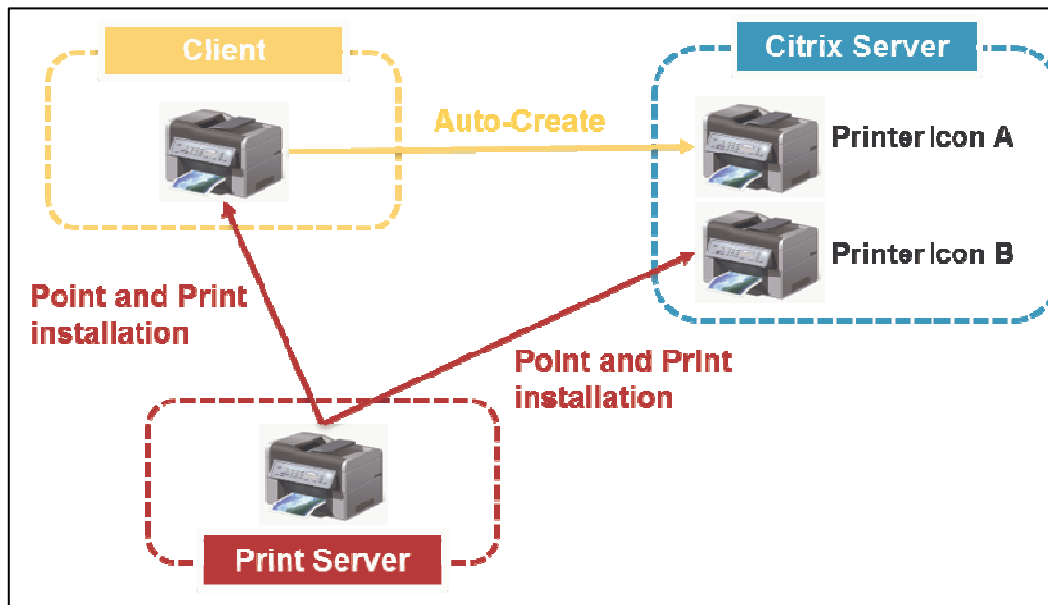
In v4.4.0.0 or earlier, the user-defined One Click Icons and watermarks are stored in the local folder ("C:\ProgramData\RICOH_DRV"). However, these folders are not targets of the Profile folder. Therefore, the user-defined One Click Icons and watermarks are not retained if a user logs on to another computer in the Roaming User Profiles environment.

To support Roaming User Profiles in the Printer Driver for Universal Print and retain the user-defined One Click Icons and watermarks, the locale of the user-defined One Click Icons and watermarks are changed.



8-7-3. Limitations

- The registries for user-defined One Click Icons and watermarks in “HKEY_CURRENT_USER\Software\RICOH\RICOH_DRV” will be retained even though the printer icons are deleted. However, the user-defined One Click Icons and watermarks will not be re-created if the printer icons are re-created.
- In the following Citrix XenApp environment, user-defined One Click Icons, watermarks, and job code information, such as the user ID and password, might be shared between printer icons A and B.

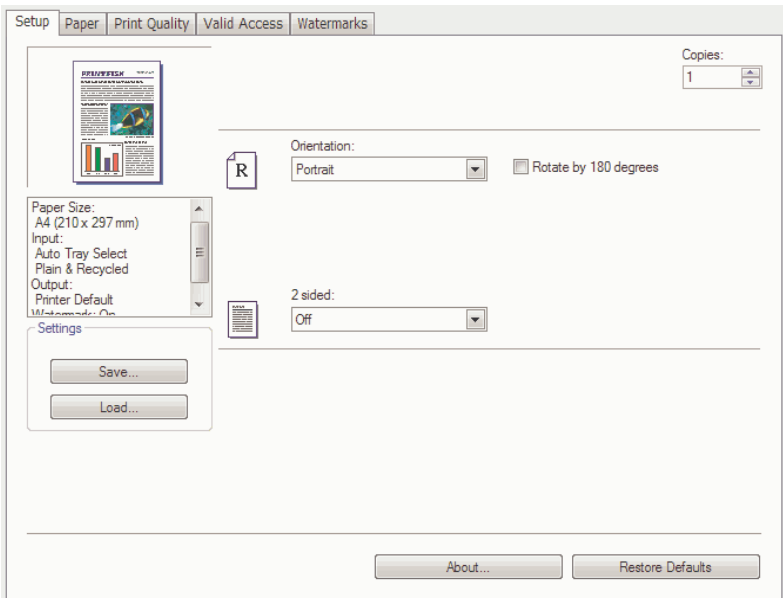


8-8. **Printing Features for the Aficio SP 4400S/4410SF/4420SF**

PCL

PCL6 Driver for Universal Print v3.9.0.0 and later have native support for Aficio SP 4400S/4410SF/4420SF. However, the driver must interface differently and functionality is limited compared to the functions that are available when using the PCL6 Driver for Universal Print's generic UI.

- **Setup**



Function/Setting	Shown in the Aficio SP 4400S/4410SF/4420SF UI	Selectable in the Generic UI	Selectable in the Aficio SP 4400S/4410SF/4420SF UI	Notes about the Printer Driver for Universal Print's Aficio SP 4400S/4410SF/4420SF UI
Jobtype	No	Normal Print	-	The Job Type "Normal Print" is always used when printing to Aficio SP 4400S/4410SF/4420SF via the Printer Driver for Universal Print.
		Sample Print	-	
		Locked Print	-	
		Hold Print	-	
		Stored Print	-	
		Document Server	-	
Color/Black and White	No	Color	-	Aficio SP 4400S/4410SF/4420SF is a B&W model.
		Black and White	-	
Copies	Yes	1 - 999	1 - 999	

Orientation	Yes	Portrait	Portrait	
		Landscape	Landscape	
Rotated by 180 degrees	Yes	Off	Off	
		On	On	
Layout	No	1 Page per Sheet	-	Jobs will always be "1 Page per Sheet".
		2 Pages per Sheet	-	
		4 Pages per Sheet	-	
		6 Pages per Sheet	-	
		9 Pages per Sheet	-	
		16 Pages per Sheet	-	
Draw Frame Border	No	Off	-	This is unnecessary because jobs are always "1 Page per Sheet".
		On	-	
Page Order	No	Right, then Down	-	This is unnecessary because jobs are always "1 Page per Sheet".
		Down, then Right	-	
		Left, then Down	-	
		Down, then Left	-	
Duplex 2 sided	Yes	Off	Off	
		Open to Left	Open to Left	
		Open to Right Top	Open to Right Top	
		Booklet	-	
Ignore Application Collate	No	Off	-	Multiple copies are always collated.
		On	-	

- **Paper**

The screenshot shows the 'Paper' configuration window. At the top, there are tabs: 'Setup', 'Paper' (selected), 'Print Quality', 'Valid Access', and 'Watermarks'. The 'Document Size' is set to 'A4 (210 x 297 mm)'. An arrow points to the 'Print On' dropdown, which is also set to 'A4 (210 x 297 mm)'. Below this, 'Paper Selection' is set to 'Same Paper for All Pages' and 'Covers/Pages Selection' is set to 'All Pages'. There are also settings for 'Output Tray' (Printer Default), 'Input Tray' (Auto Tray Select), and 'Type' (Plain & Recycled). At the bottom are buttons for 'Custom Paper Size...' and 'Restore Defaults'.

Function/Setting	Shown in the Aficio SP 4400S/4410SF/4420SF UI	Selectable in the Generic UI	Selectable in the Aficio SP 4400S/4410SF/4420SF UI	Notes about the Printer Driver for Universal Print's Aficio SP 4400S/4410SF/4420SF UI
Document Size	Yes	12" x 18"	-	Aficio SP 4400S/4410SF/4420SF and GW devices use different labels for some PDL page sizes.
		11" x 17" (Ledger)	-	
		Legal (8.5" x 14")	Legal (8.5" x 14")	
		Letter (8.5" x 11")	Letter (8.5" x 11")	
		Executive (7.25" x 10.5")	Executive (7.25" x 10.5")	
		5.5" x 8.5" (Half Letter/Statement)	5.5" x 8.5" (Half Letter/Statement)	
		A3 (297 x 420 mm)	-	
		A4 (210 x 297 mm)	A4 (210 x 297 mm)	
		A5 (148 x 210 mm)	-	
		A6 (105 x 148 mm)	-	
		B4 JIS (257 x 364 mm)	-	
		B5 JIS (182 x 257 mm)	B5 JIS (182 x 257 mm)	

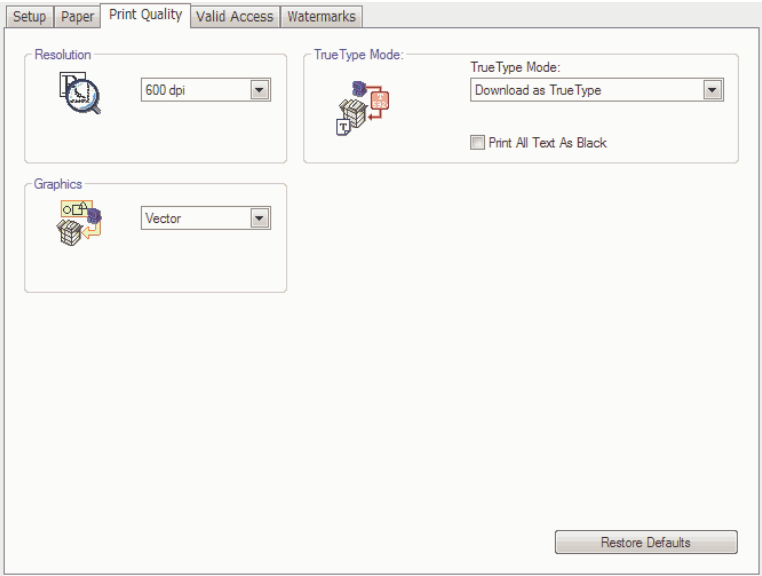
		B6 (128 x 182 mm)	-	
		8" x 13" (F/GL)	-	
		8.25" x 13" (Folio)	-	
		8.5" x 13" (Foolscap)	-	
		Com10 Env. (4.125" x 9.5")	Com10 Env. (4.125" x 9.5")	
		Monarch Env. (3.875" x 7.5")	-	
		DL Env. (110 x 220 mm)	DL Env. (110 x 220 mm)	
		C6 Env. (114 x 162 mm)	-	
		C5 Env. (162 x 229 mm)	C5 Env. (162 x 229 mm)	
		8K	-	
		16K	-	
Zoom	No	Off	-	
		On	-	
Zoom Value	No	-	-	
Print On	Yes	Off	Off	
		On	On	
Print On Print Size	Yes	12" x 18"	-	Aficio SP 4400S/4410SF/4420SF and GW devices use different labels for some PDL page sizes.
		11" x 17" (Ledger)	-	
		Legal (8.5" x 14")	Legal (8.5" x 14")	
		Letter (8.5" x 11")	Letter (8.5" x 11")	
		Executive (7.25" x 10.5")	Executive (7.25" x 10.5")	
		5.5" x 8.5" (Half Letter/Statement)	5.5" x 8.5" (Half Letter/Statement)	
		A3 (297 x 420 mm)	-	
		A4 (210 x 297 mm)	A4 (210 x 297 mm)	
		A5 (148 x 210 mm)	-	
		A6 (105 x 148 mm)	-	
		B4 JIS (257 x 364 mm)	-	
		B5 JIS (182 x 257)	B5 JIS (182 x 257)	

		mm)	mm)	
		B6 (128 x 182 mm)	-	
		8" x 13" (F/GL)	-	
		8.25" x 13" (Folio)	-	
		8.5" x 13" (Foolscap)	-	
		8K	-	
		16K	-	
Fit to Print Size	No	Off	-	
		On	-	
Paper Selection	Yes	Same Paper for All Pages	Same Paper for All Pages	
Covers/Page Selection	Yes	All Pages	All Pages	
Output Tray	Yes	Printer Default	Printer Default	
Input Tray	Yes	Auto Tray Select	Auto Tray Select	
		Tray 1	Tray 1	
		Tray 2	Tray 2	
		Tray 3	-	
		Tray 4	-	
		Tray 5	-	
		Tray 6	-	
		Tray 7	-	
		(Multi) Bypass Tray	-	
Media Type	Yes	Plain & Recycled	Plain & Recycled	
		Plain	Plain	
		Recycled	Recycled	
		Special	-	
		Special 1	-	
		Special 2	-	
		Special 3	-	
		Thick	-	
		Thick 1	-	
		Thick 2	-	
		Thick 3	-	
		Thin	-	
		Transparency	Transparency	
		Translucent	-	

		Color	Color	
		Color 1	-	
		Color 2	-	
		Letterhead	Letterhead	
		Preprinted	Preprinted	
		Prepunched	-	
		Labels	Labels	
		Bond	Bond	
		Cardstock	Cardstock	
		Tab Stock	-	
		Yellow	-	
		Green	-	
		Blue	-	
		Purple	-	
		Ivory	-	
		Orange	-	
		Pink	-	
		Red	-	
		Gray	-	
		Glossy	-	
		Envelope	-	
		Postcard	-	
		Inkjet Postcard	-	
		Coated	-	

- Print Quality**

There are no differences between the Print Quality tabs within the Aficio SP 4400S/4410SF/4420SF UI and generic UI.



Function/Setting	Shown in the Aficio SP 4400S/4410SF/4420SF UI	Selectable in the Generic UI	Selectable in the Aficio SP 4400S/4410SF/4420SF UI	Notes about the Printer Driver for Universal Print's Aficio SP 4400S/4410SF/4420SF UI
Resolution	Yes	600 dpi	600 dpi	
Graphics	Yes	Vector	Vector	
		Raster	Raster	
True Type Mode	Yes	Download as True Type	Download as True Type	
Print All Text As Black	Yes	On	On	
		Off	Off	

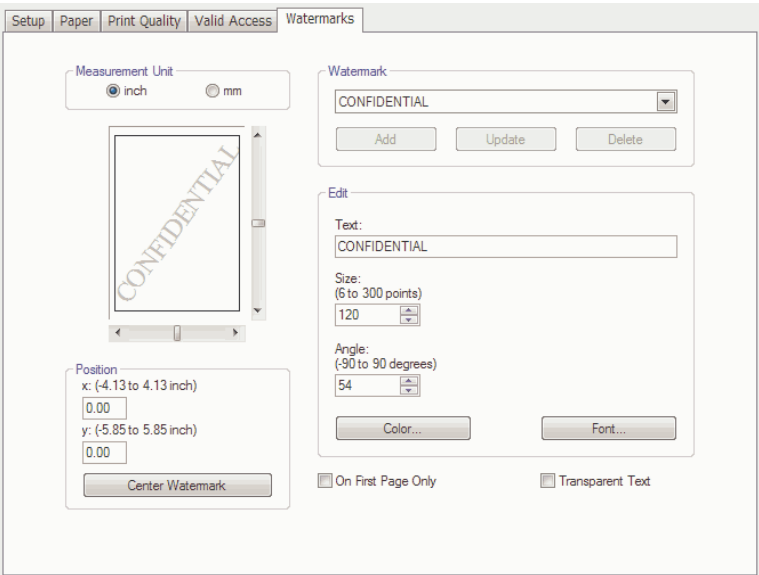
- Valid Access



Function/Setting	Shown in the Aficio SP 4400S/4410SF/4420SF UI	Selectable in the Generic UI	Selectable in the Aficio SP 4400S/4410SF/4420SF UI	Notes about the Printer Driver for Universal Print's Aficio SP 4400S/4410SF/4420SF UI
User Authentication	No	User Code textbox	-	

- Watermarks**

There are no differences between the Watermarks tabs in the Aficio SP 4400S/4410SF/4420SF UI and generic UI.

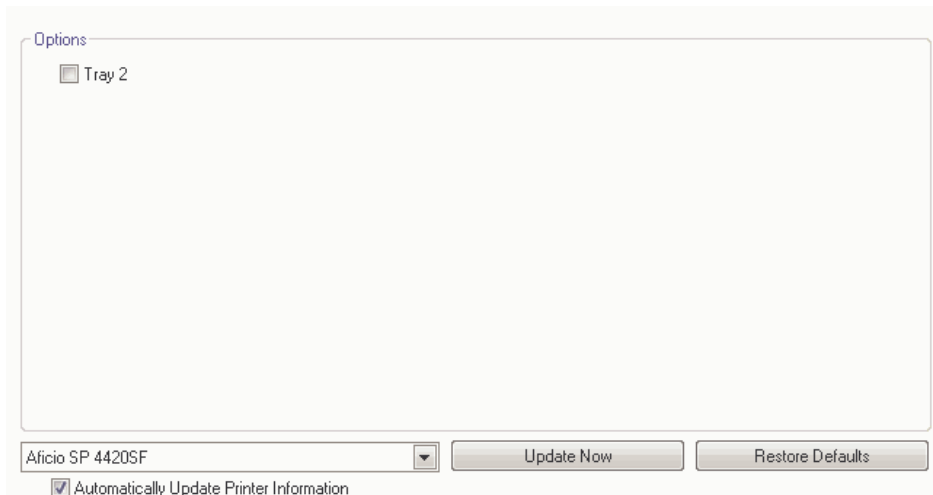


Function/Setting	Shown in the Aficio SP 4400S/4410SF/4420SF UI	Selectable in the Generic UI	Selectable in the Aficio SP 4400S/4410SF/4420SF UI	Notes about the Printer Driver for Universal Print's Aficio SP 4400S/4410SF/4420SF UI
Watermark	Yes	COPY	COPY	
On First Page Only	Yes	Off	Off	
		On	On	
Transparent Text	Yes	Off	Off	
		On	On	

- **Accessories: Options**

Options for the Aficio SP 4400S/4410SF/4420SF must be configured manually.

Note: The Update Now button needs to be pressed to display the options (Aficio SP 4400S/4410SF/4420SF only has Tray 2 as an option).



8-9. Support for the Aficio SP 3500SF/3510SF and 3500N/3510DN

PCL

PCL6 Driver for Universal Print v3.11.0.0 can be used in Generic Model mode with Aficio SP 3500SF/3510SF and Aficio SP 3500N/3510DN. However, these devices require a certain level of firmware to be used with the PCL6 Driver for Universal Print.

Required firmware versions:

- Aficio SP 3500SF/3510SF: v2.01 or later
- Aficio SP 3500N/3510DN: v2.00 or later

After updating the firmware, the PCL6 Mode setting needs to be configured to Universal. To find this setting, please refer to the section [“8-10. PCL6 Mode”](#).

8-10. Support for the SP C250SF/C252SF and the SP C250DN/C252DN

PCL

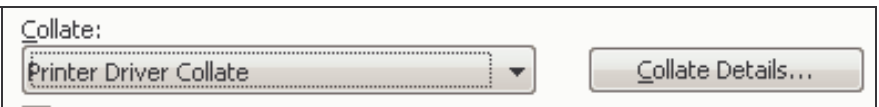
The SP C250SF/C252SF and the SP C250DN/C252DN can be selected as device-specific models in PCL6 Driver for Universal Print v4.3.0.0 and later.

However, the setting “**PCL6 Mode > Universal**” needs to be changed before these devices can be used with the PCL6 Driver for Universal Print. To find this setting, please refer to the section “[8-10. PCL6 Mode](#)”.

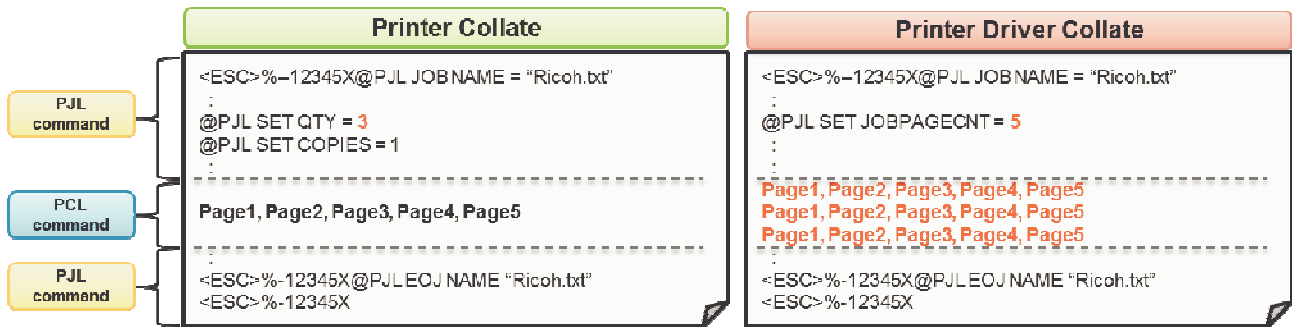
PCL

8-10-1. Printer Driver Collate function

The SP C250SF/C252SF and the SP C250DN/C252DN do not have the collate function on the printer side. Therefore, the “Printer Collate” setting is not available. Instead, the “**Printer Driver Collate**” setting is available.



The following case demonstrates the differences between the commands “Printer Collate” and “Printer Driver Collate”, and shows a job that consists of three copies of five pages of prints and simplex printing.



When selecting the “Printer Driver Collate” setting, the PDL commands will be created for the total number of pages. In the above case, the PDL commands will be created for each of the 15 pages. When using the “Printer Driver Collate” setting, “@PJL SET JOBPAGECNT” will be used for judging the separation of each copy. The value of “@PJL SET JOBPAGECNT” is the number of printed sides in one copy.

For example, when printing a five-page document:

- If “Duplex=OFF” and “Layout=1 Page per Sheet”, the value will be “5”.
- If “Duplex=ON” and “Layout=1 Page per Sheet”, the value will be “5”.
- If “Duplex=ON” and “Layout=2 Pages per Sheet”, the value will be “3”.

8-11. PCL6 Mode

PCL

Overview

PCL6 Mode is a new feature that makes the driver compatible with the firmware. This feature has been added because the PCL6 Driver for Universal Print now supports the following models:

- Aficio SP 3500SF/3510SF
- Aficio SP 3500N/3510DN
- SP C250SF/C252SF
- SP C250DN/C252DN

If you print by using the PCL6 Universal Driver, make sure that “PCL6 Mode” is set to “Universal”. If you print by using the model-specific PCL6 driver, make sure that “PCL6 Mode” is set to “[product name]”. “PCL6 Mode” can be set to “Universal” or “[product name]” by using the control panel or Web Image Monitor.

IMPORTANT:

“PCL6 Mode” is set to “[product name]” by default.

Precautions:

If there is a conflict between the PCL6 Mode setting and the actual driver, the following will occur:

- The paper will not be fed from the assigned tray.
- The set paper size will not be used.

If you print by using the PCL6 Universal Driver and the PCL6 Mode is configured to “[product name]”, the hostname of the printer will be changed to the “Computer name” or “Smart Device name”.

9 Other Functions

- [Generic Model Mode](#)
- [PrinterSwitcher](#)
- [Enhanced Locked Print NX FlexRelease Server \(ELP-NX FS\)](#)
- [Printer Driver Packager NX](#)
- [Save Driver Settings](#)

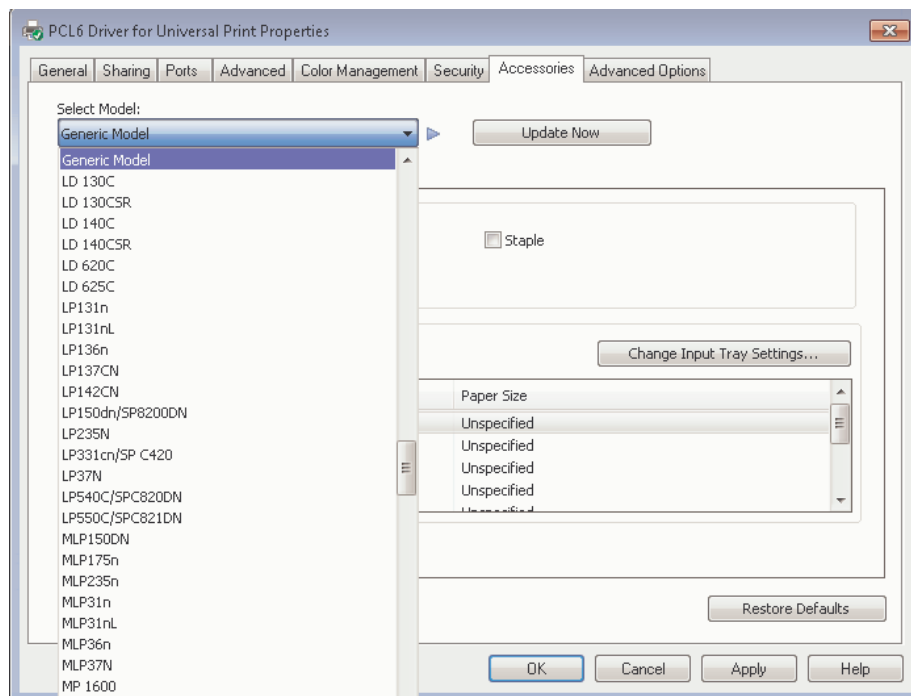
9-1. Generic Model Mode

PCL

PS

In addition to the officially supported models listed above, other models can be used with the Printer Driver for Universal Print. If the Printer Driver for Universal Print is connected to a device that is not in the list, the Generic Model setting can be used to provide basic functionality. The Generic Model UI will contain only functions that are commonly supported by most Ricoh models. Though the Generic Model setting can be used with unsupported models, we only provide official support for certain models.

Printer Driver for Universal Print v3.0.0.0 and later versions have a Generic Model interface, which supports basic functionality that is common to most models.



9-1-1. Models Supported as Generic Models by Printer Driver for Universal Print v4.5.0.0

PCL

PS

See the section [“1-6. Supported Models – Printer Driver for Universal Print v4.5.0.0”](#)

9-1-2. Supported Functions (as of v4.5.0.0)



Will be grayed out if the required options are not installed.



Will be removed from the UI if the required options are not installed.

Tab	Function	Selections	PCL6	PS
Job Setup	Job Type	Normal Print	✓	✓
		Sample Print	✓	✓
		Locked Print	✓	✓
		Hold Print	✓	✓
		Stored Print	✓	✓
		Stored and Print	✓	✓
		Document Server	✓	✓
	User ID		✓	✓
	Password		✓	✓
	File Name		✓	✓
Basic	User Name		✓	✓
	User Code		✓	✓
	User Authentication		✓	
	Orientation	Portrait	✓	✓
		Landscape	✓	✓
	Color / Black and White	Color	✓	✓
		Black and White	✓	✓
	Rotate by 180 degrees		✓	
	Copies		✓	✓
	Document Size	12" x 18"	✓	✓
		11" x 17"	✓	✓
		Legal (8.5" x 14")	✓	✓
		Letter (8.5" x 11")	✓	✓
		Executive (7.25" x 10.5")	✓	✓

		5.5" x 8.5"	✓	✓
		A3 (297 x 420 mm)	✓	✓
		A4 (210 x 297 mm)	✓	✓
		A5 (148 x 210 mm)	✓	✓
		A6 (105 x 148 mm)	✓	✓
		B4 JIS (257 x 364 mm)	✓	✓
		B5 JIS (182 x 257 mm)	✓	✓
		B6 JIS (128 x 182 mm)	✓	✓
		8" x 13"	✓	✓
		8.25" x 13"	✓	✓
		8.5" x 13"	✓	✓
		Com10 Env. (4.125" x 9.5")	✓	✓
		Monarch Env. (3.875" x 7.5")	✓	✓
		DL Env. (110 x 220 mm)	✓	✓
		C6 Env. (114 x 162 mm)	✓	✓
		C5 Env. (162 x 229 mm)	✓	✓
		8K (267x390 mm)	✓	✓
		16K (195x267 mm)	✓	✓
	Custom Page Size		✓	✓
	Reduce/Enlarge	Off	✓	✓
		Fit to Print Size	✓	✓
		Zoom	✓	✓
	Zoom		✓	✓
	Print On	Same as Document Size	✓	✓
Paper	Input Tray	Auto Tray Select	✓	✓
		Tray1	✓	✓
		Tray2	✓	✓
		Tray3	✓	✓
		Tray4	✓	✓
		Tray5	✓	✓
		Tray6	✓	✓
		Tray7	✓	✓
		Bypass Tray	✓	✓
	Paper Type	Plain & Recycled	✓	✓
		Plain	✓	✓
		Recycled	✓	✓
		Special	✓	✓

		Special2	✓	✓
		Special3	✓	✓
		Thick	✓	✓
		Thick2	✓	✓
		Thick3	✓	✓
		Thin	✓	✓
		Transparency	✓	✓
		Translucent	✓	✓
		Color	✓	✓
		Color 1	✓	✓
		Color 2	✓	✓
		Letterhead	✓	✓
		Preprinted	✓	✓
		Prepunched	✓	✓
		Labels	✓	✓
		Bond	✓	✓
		Cardstock	✓	✓
		Tab Stock	✓	✓
		Yellow	✓	✓
		Green	✓	✓
		Blue	✓	✓
		Purple	✓	✓
		Ivory	✓	✓
		Orange	✓	✓
		Pink	✓	✓
		Red	✓	✓
		Gray	✓	✓
		Glossy	✓	✓
		Envelope	✓	✓
		Postcard	✓	✓
		Inkjet Postcard	✓	✓
		HG Plain	✓	✓
		Coated	✓	✓
2 Sided/ Layout/ Booklet	Layout	Off	✓	✓
		1 Page per Sheet	✓	✓
		2 Pages per Sheet	✓	✓
		4 Pages per Sheet	✓	✓

		6 Pages per Sheet	✓	✓
		9 Pages per Sheet	✓	✓
		16 Pages per Sheet	✓	✓
	Page Order	Left to Right, Top to Bottom	✓	✓
		Right to Left, Top to Bottom	✓	✓
	Draw Frame Border	Off	✓	✓
		On	✓	✓
	2 sided	Long Edge Bind (Open to Left/Top)	✓	✓
		Short Edge Bind (Open to Top/Left)	✓	✓
	Booklet	Off	✓	✓
		Magazine	✓	✓
	Booklet/Page Order	Open to Left/Top		✓
		Open to Right/Bottom		✓
	Mirrored Output	Off		✓
		On		✓
Output Settings	Output Tray	Printer Default	✓	✓
	Collate	Printer Collate	✓	✓
		Application Collate	✓	✓
	Rotate Landscape Orientation	Off		✓
		On		✓
	Reverse Order Printing	Off	✓	✓
		On	✓	✓
Finishing	Staple	Off	✓	✓
		Top Left	✓	✓
		Top Right	✓	✓
		2 at Top	✓	✓
		2 at Left	✓	✓
		2 at Right	✓	✓
		2 at Center	✓	✓
	Punch	Off	✓	✓
		Left	✓	
		Top	✓	
		Right	✓	
		2 at Left		✓
		2 at Top		✓
		2 at Right		✓

		3 at Left		✓
		3 at Top		✓
		3 at Right		✓
		4 at Left		✓
		4 at Top		✓
		4 at Right		✓
Print Quality: Standard	Resolution	600 × 600 dpi	✓	✓
		1200 × 1200 dpi	✓*	✓*
Print Quality: Advanced	Vector/Raster	Vector	✓	
		Raster	✓	
	Print All Text as Black	Off	✓	
		On	✓	
Print Quality: Option	True Type Font	Substitute with Device Font		✓
		Download as SoftFont		✓
	True Type Font Download Option	Automatic		✓
		Outline		✓
		Bitmap		✓
		Native TrueType		✓
Effects	Print Watermark	Off	✓	✓
		On	✓	✓
Driver Options	Spool Data in EMF Format	Off		✓
		On		✓
	PostScript Output Option	Optimize for Speed		✓
		Optimize for Portability		✓
		Encapsulated PostScript (EPS)		✓
		Archive Format		✓
	PostScript Language Level	3		✓
		2		✓
		1		✓
	Send PostScript Error Handler	Off		✓
		On		✓
Printer Properties: Accessories	Automatically Update Printer Information	Off	✓	✓
		On	✓	✓
Printer Properties: Advanced	Manage Preset List		✓	✓
	Do not Allow User to Register Preset	Off	✓	✓

Options		On	✓	✓
	User Authentication	Off	✓	
		On	✓	
	With Encryption	Off	✓	
		On	✓	
	Driver Encryption Key		✓	
	Increase Auto-keep Settings for Applications	Off	✓	
		On	✓	

*Printer Driver for Universal Print v4.5.0.0 or later only.

9-1-3. Custom Paper Size for the Generic Model**PCL****PS**

As of Printer Driver for Universal Print v4.0.0.0, Custom Paper Size will be supported when using Generic Model mode. The following measurement units for width and length are supported:

Printer Driver for Universal Print v4.0.0.0 to v4.4.0.0:

	Inches	Millimeters
Width	3.55 – 12.00	90.1 – 304.9
Length	5.83 – 23.61	148.0 – 599.8

Printer Driver for Universal Print v4.5.0.0 and later:

	Inches	Millimeters
Width	2.52 – 13.00	64.0 – 330.2
Length	4.93 – 49.60	125.0 – 1260.0

- As of Printer Driver for Universal Print v4.5.0.0, measurement units for width and length have been expanded for all of the supported models.
- If a job that includes the unsupported measurement units for a model is submitted, a paper size mismatch will occur. For example, the MET-C1 supports 3.94 inches to 13.00 inches (100.0 to 330.2 mm) as the width. Therefore, if 2.52 inches (64.0 mm) is specified as the width, a paper size mismatch will occur.

9-1-4. Generic Model: Bidirectional Communication**PCL****PS**

As of the Printer Driver for Universal Print (PCL6 v3.7.0.0 or PS v3.8.0.0), the following settings in the generic UI can be updated via bidirectional communication.

Printer Properties:

- Accessories tab > Options: Duplex, Staple, and Punch
- Paper Size Settings tab > Input Tray/Paper Size Settings

Settings:

- Color / Black and White
- Job Type
- Input Tray
- Document Size*
- Print On

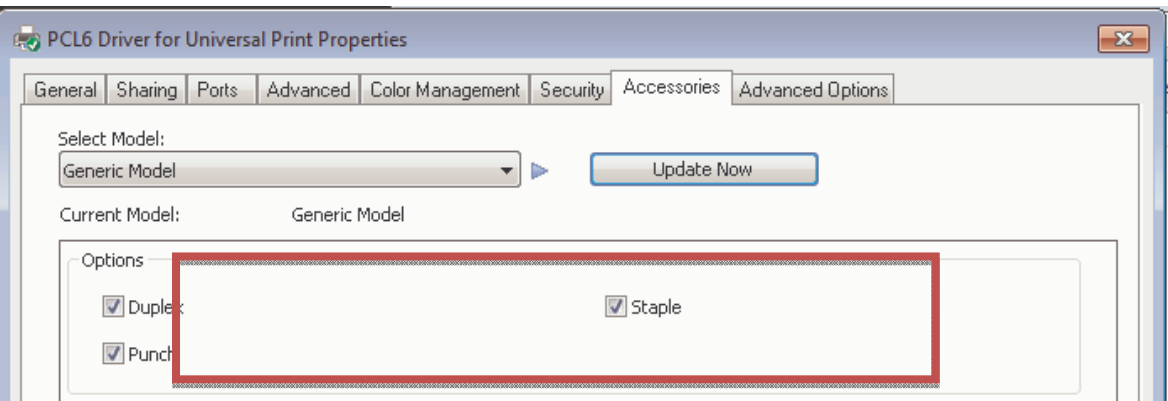
*This setting only applies to PCL6 Driver for Universal Print v3.7.0.0 to v3.13.0.0 and PS Driver for Universal Print v3.7.0.0 or later.

9-1-5. Specification Change as of v4.0.0.0

PCL

PS

When switching to Generic Model mode and bidirectional communication does not work, Duplex, Staple, and Punch will be enabled by default because some models support only Generic Model mode even though they support the specific model when using Printer Driver for Universal Print v3.13.0.0 or earlier. When updating to Printer Driver for Universal Print v4.x with each of these models, the options in the Accessories tab will need to be reconfigured after updating.



9-1-6. Delta Row Compression for Generic Model Mode

PCL

PCL6 Driver for Universal Print v4.1.0.0 and earlier

- When printing a document by using Generic Model mode in the PCL6 Driver for Universal Print, the spool size of the print job might be bigger than a job generated by using the model-specific mode of the driver.

An example of spool sizes.

The screenshot shows the 'PCL6 Driver for Universal Print - Paused' window. It contains a table with columns: Document Name, Status, Owner, Pages, Size, Submitted, and Port. Three print jobs are listed, all with 46 pages. The middle job, which used 'Generic Model mode', has a size of 20.9 MB, which is highlighted with a red box. The other two jobs used 'Model-specific mode' and have a size of 16.3 MB each.

Document Name	Status	Owner	Pages	Size	Submitted	Port
Microsoft Word - PCL6_Driver_for_Universal...		gts	46	16.3 MB	9:33:46 AM 11/21/2012 ->	Model-specific mode
Microsoft Word - PCL6_Driver_for_Universal...		gts	46	20.9 MB	9:30:08 AM 11/21/2012 ->	Generic Model mode
Microsoft Word - PCL6_Driver_for_Universal...		gts	46	16.3 MB	9:27:44 AM 11/21/2012 ->	Model-specific mode

3 document(s) in queue

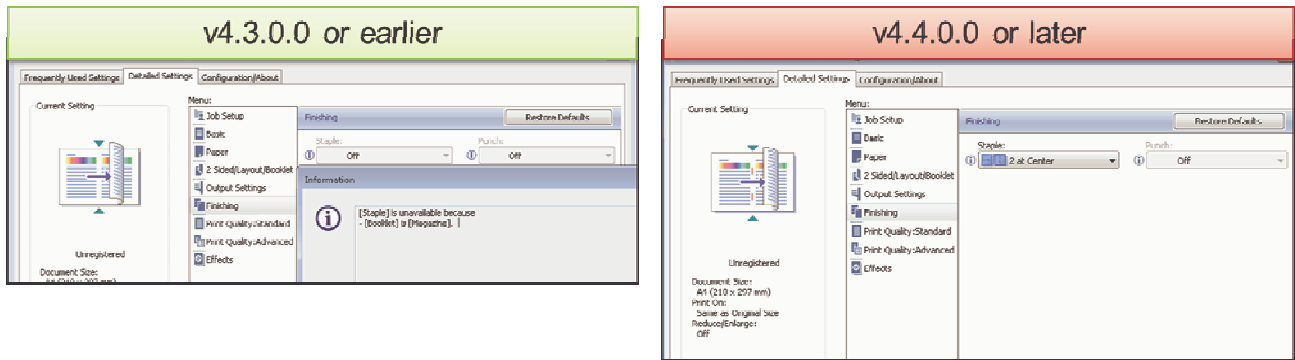
- Some model-specific modes support the Delta Row compression method.
- Print jobs generated by using Delta Row compression are generally smaller than jobs generated by not using it.

PCL6 Driver for Universal Print v4.2.0.0 or later

Generic Model mode supports Delta Row compression method, so the issue regarding the bigger spool size will not occur.

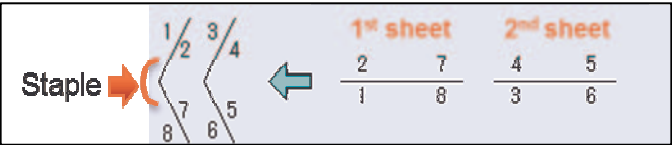
9-1-7. “2 at Center” Staple for Generic Mode

As of Printer Driver for Universal Print v4.4.0.0, the “2 at center” staple can be used with the Booklet function when in Generic Model mode.



The direction of the staples is different depending on the finisher option. There are two types of finisher options, as shown below:

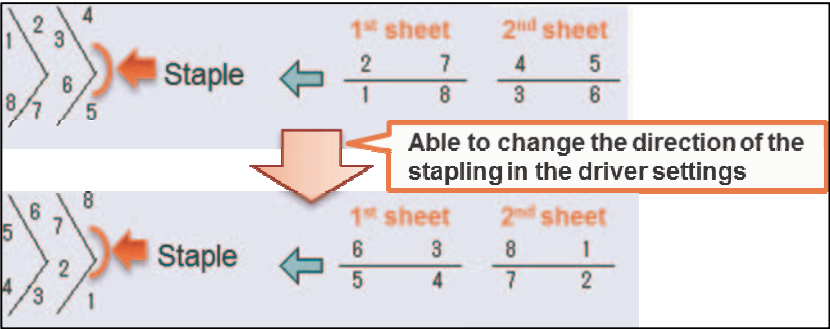
- **Type 1:** Stapling will be conducted in the normal direction, as shown below:



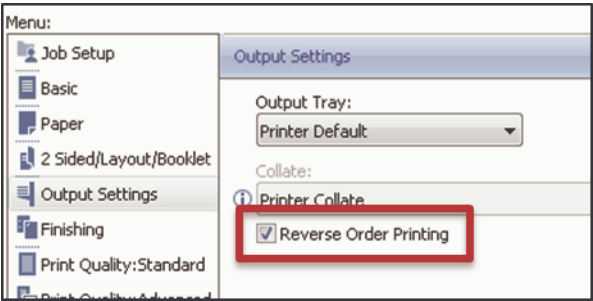
- **Type 2:** Stapling will be conducted in the opposite direction, as shown below. The driver setting will need to be changed to obtain the normal result.



When following Type 2, this direction can be changed by enabling the “Reverse Order Printing” setting.



“Reverse Order Printing” setting:



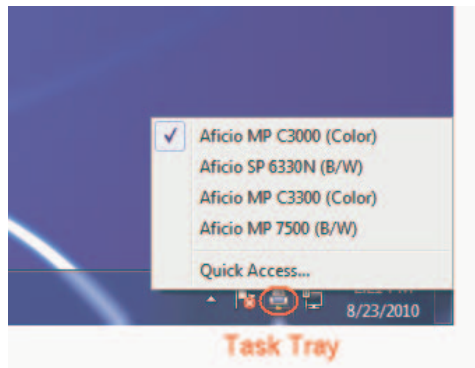
9-2. PrinterSwitcher

9-2-1. Overview

PCL

PS

PrinterSwitcher is a utility used in conjunction with a universal driver. It can automatically search and add available printing devices from the network, making them immediately available for printing. These added devices appear in a list of available devices presented to users when printing. This utility can be downloaded from the Ricoh website.



PCL

PS

9-2-2. Specifications

Languages:

- Displays in English only but will run on a Windows OS of any language.

Supported operating systems:

- Windows 2000, Windows XP, Windows Vista, Windows 7 (x86 and x64), Windows 8 (x86 and x64) and Windows 8.1 (x86 and x64)
- Windows Server 2000, Windows Server 2003, Windows Server 2008 (x86 and x64), Windows Server 2008 R2 (x64), Windows Server 2012 (x64) and Windows Server 2012 R2 (x64)

Supported drivers:

Printer Switcher supports only Printer Driver for Universal Print v2.0.0.0 or later. Model-specific drivers are not supported with Printer Switcher. This is explained on the following webpage:

http://support.ricoh.com/bb/html/dr_ut_e/rc2/explanation/program/priswi/explain.htm

Supported models:

The following release note for Printer Switcher lists the supported models for each version of Printer Switcher:

http://support.ricoh.com/bb/html/dr_ut_e/rc2/history/bb/pub_e/dr_ut_e/0001257/0001257584/V1020/z62985en/history.htm

The models in that list support connecting with the Printer Driver for Universal Print with the Printer Switcher port.

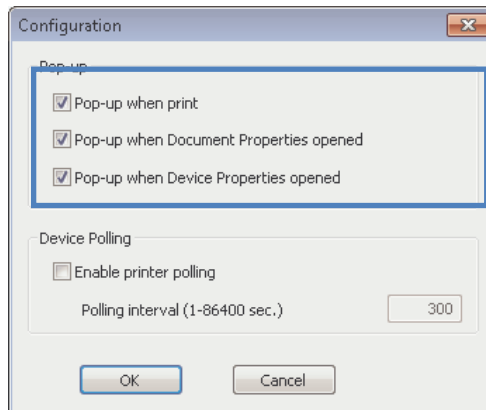
Unsupported:

- Point and Print
- Citrix XenApp/Presentation Server
- Microsoft Cluster Service
- Terminal Services
- Remote Desktop
- Fast User Switching

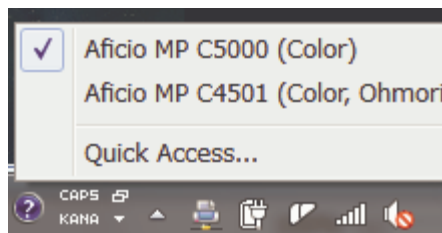
9-2-3. Limitation: Some Functions Have Been Eliminated

The following functions are not supported in PCL6 Driver for Universal Print v4.0.0.0 and later versions because they lead to incompatibilities with the operating system. In addition, the PS Driver for Universal Print does not initially support these functions:

- Pop up when printing
- Pop up when Document Properties is opened
- Pop up when Device Properties is opened



Workaround: Select the correct destination from the task tray before printing.



9-3. **Enhanced Locked Print NX FlexRelease Server (ELP-NX FS)**

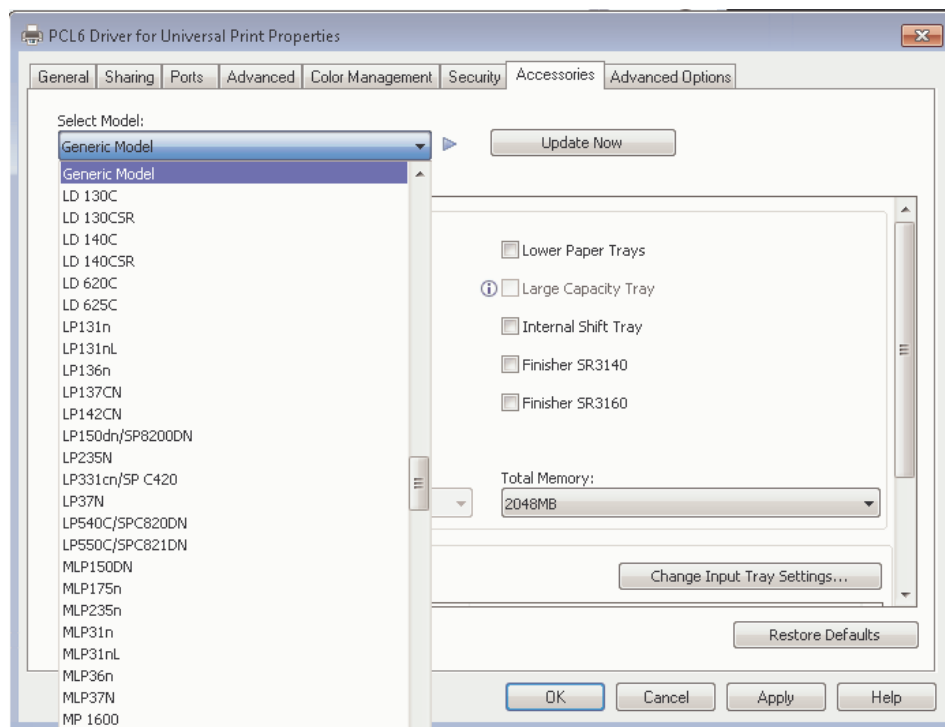
PCL

PS

Enhanced Locked Print NX (ELP-NX) FlexRelease Server lets a user print to the networked printer of his or her choice. The user prints normally, and the print jobs are stored on the ELP-NX FlexRelease Server. When the user is ready to print, he or she goes to their target printer, swipes their ID card to log on, and then selects the tab for the FlexRelease Server that is holding the job. A list of that user's available print jobs will be shown, and he or she can to print any available job.

ELP-NX FlexRelease Server can only be used with a Printer Driver for Universal Print that is connected to a Generic Model.

9-3-1. Overview



For details about ELP-NX, see:

- Enhanced Locked Print NX (ELP-NX):
www.rioh-usa.com/solutions/solution_features.asp?pCategoryId=76&pCatName=Output+%26+Security&tsn=Ricoh-USA&pSubCategoryId=77&pSubCatName=Print+Security&pProductId=1327&pProductName=Enhanced+Locked+Print+NX
- Enhanced Locked Print NX FlexRelease Server:
www.rioh-europe.com/products/output-management-and-security/s_flex_release_server.jsp

9-4. Printer Driver Packager NX

9-4-1. Overview

PCL

PS

Printer Driver Packager NX provides printer driver customization and printer driver-packaging functionality.

The functionality of the customization can be used to modify the driver to fit specific needs and uses. By using Printer Driver Packager NX, driver settings can be assigned specific default values, be locked to certain values, or have some of the options for a setting removed. Printer Driver Packager NX also has a pop-up function. It can be used, for example, to force users to enter their user ID into a pop-up dialog window before printing.

In addition, Printer Driver Packager NX makes a new driver package without the driver losing its WHQL certification.

The following is an example of assigning specific default values or locking certain values:

New Print Configuration

Basic Configuration | Option Configuration

Driver Name
RICOH Aficio MP C5502 PCL 6

Device Name
Aficio MP C5502

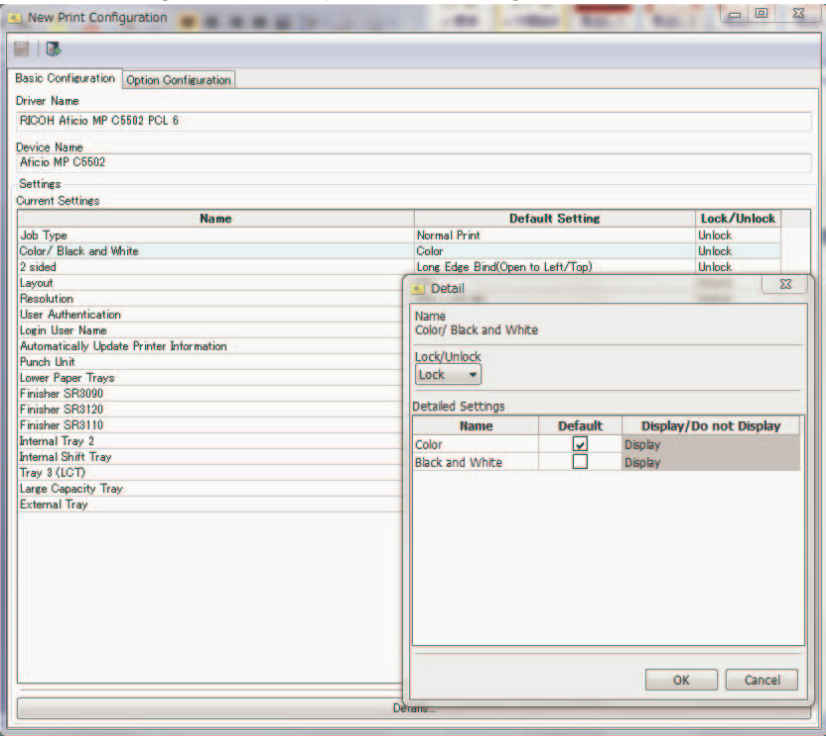
Settings

Current Settings

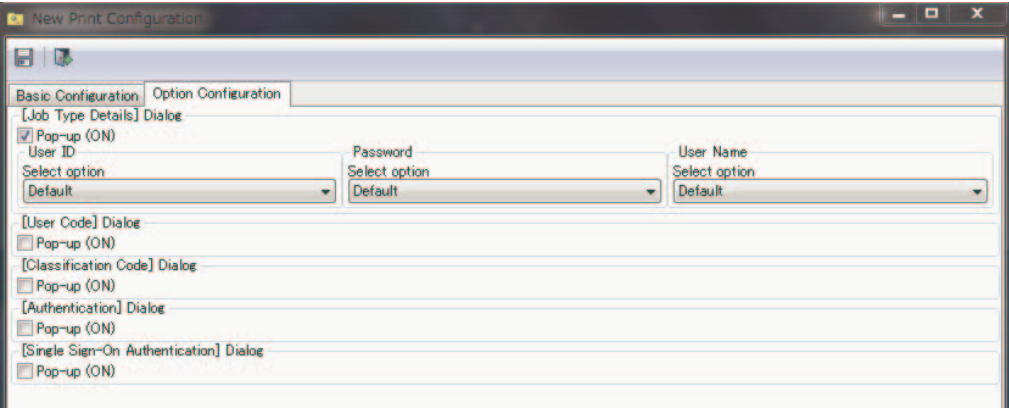
Name	Default Setting	Lock/Unlock
Job Type	Normal Print	Unlock
Color/ Black and White	Color	Unlock
2 sided	Long Edge Bind(Open to Left/Top)	Unlock
Layout	Off	Unlock
Resolution	600 x 600 dpi	Unlock
User Authentication	Off	
Login User Name	Defined User ID	Unlock
Automatically Update Printer Information	On	
Punch Unit	None	
Lower Paper Trays	Off	
Finisher SR3090	Off	
Finisher SR3120	Off	
Finisher SR3110	Off	
Internal Tray 2	Off	
Internal Shift Tray	Off	
Tray 3 (LCT)	Off	
Large Capacity Tray	Off	
External Tray	Off	

Details...

The following is an example of removing the selections for a setting:



The pop-up function:



9-4-2. Specifications

Supported driver versions include:

		Version of Printer Driver for Universal Print			
		v3.2.0.0 – 3.13.0.0 (v3.20.00)	v4.0.0.0	v4.1.0.0	v4.2.0.0 and later
Version of Printer Driver Packager NX	v1.00.01 (initial)	Supported	Supported*	Unsupported	Unsupported
	v1.00.02	Supported	Supported	Supported	Unsupported
	v1.00.03 and later	Supported	Supported	Supported	Supported

*Supports the printer driver-packaging functionality only.

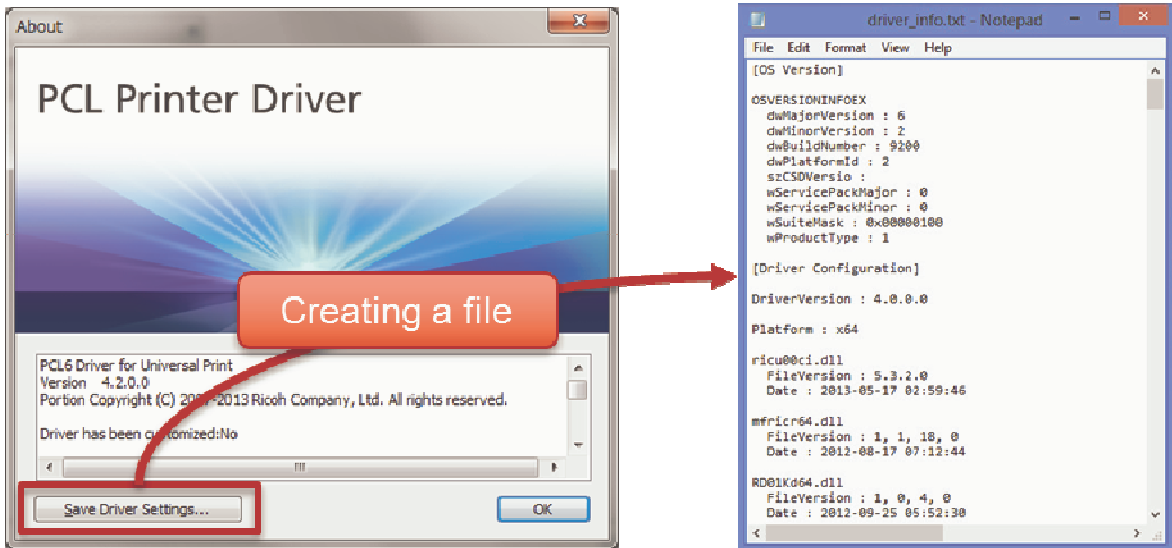
For details about Printer Driver Packager NX, see the user manual.

9-5. Save Driver Settings

PCL

PS

This function can save the current driver settings and details of the operating system, driver version, and driver modules (versions and dates*) as a file.



*The driver module timestamp that is displayed is different depending on the version of Printer Driver for Universal Print.

Version of Driver for Universal Print	Standard Value
v4.1.0.0 and earlier	UTC
v4.2.0.0 and later	Local time

10 Appendix

10-1. Table: Details About Upgrading Versions by Using the New Driver Button

PCL	From	To							
		v1.0.0.0	v1.1.0.0	v1.2.0.0	v1.3.0.0	v1.4.0.0	v2.0.0.0	v2.1.0.0	v2.3.0.0
	v1.0.0.0	No	No	No	No	No	No	No	No
	v1.1.0.0	No	No	No	No	No	No	No	No
	v1.2.0.0	No	No	No	No	No	No	No	No
	v1.3.0.0	No	No	No	No	No	No	No	No
	v1.4.0.0	No	No	No	No	No	No	No	No
	v2.0.0.0	No	No	No	No	No	No	No	No
	v2.1.0.0	No	No	No	No	No	No	No	No
	v2.3.0.0	No	No	No	No	No	No	No	No
	v3.0.0.0	No	No	No	No	No	No	No	No
	v3.1.0.0	No	No	No	No	No	No	No	No
	v3.2.0.0	No	No	No	No	No	No	No	No
	v3.3.0.0	No	No	No	No	No	No	No	No
	v3.4.0.0	No	No	No	No	No	No	No	No
	v3.5.0.0	No	No	No	No	No	No	No	No
	v3.6.0.0	No	No	No	No	No	No	No	No
	v3.7.0.0	No	No	No	No	No	No	No	No
	v3.8.0.0	No	No	No	No	No	No	No	No
	v3.8.1.0	No	No	No	No	No	No	No	No
	v3.9.0.0	No	No	No	No	No	No	No	No
	v3.10.0.0	No	No	No	No	No	No	No	No
	v3.10.1.0	No	No	No	No	No	No	No	No
	v3.11.0.0	No	No	No	No	No	No	No	No
	v3.12.0.0	No	No	No	No	No	No	No	No
	v3.13.0.0	No	No	No	No	No	No	No	No
	v4.0.0.0	No	No	No	No	No	No	No	No
	v4.1.0.0	No	No	No	No	No	No	No	No
	v4.2.0.0	No	No	No	No	No	No	No	No
	v4.3.0.0	No	No	No	No	No	No	No	No
	v4.4.0.0	No	No	No	No	No	No	No	No
	v4.5.0.0	No	No	No	No	No	No	No	No

		To							
		v3.0.0.0	v3.1.0.0	v3.2.0.0	v3.3.0.0	v3.4.0.0	v3.5.0.0	v3.6.0.0	v3.7.0.0
From	v1.0.0.0	No	No	No	No	No	No	No	No
	v1.1.0.0	No	No	No	No	No	No	Yes	Yes
	v1.2.0.0	No	No	No	No	No	No	Yes	Yes
	v1.3.0.0	No	No	No	No	No	No	Yes	Yes
	v1.4.0.0	No	No	No	No	No	No	Yes	Yes
	v2.0.0.0	No	No	No	No	No	No	Yes	Yes
	v2.1.0.0	No	No	No	No	No	No	Yes	Yes
	v2.3.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.0.0.0	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.1.0.0	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v3.2.0.0	No	No	No	Yes	Yes	Yes	Yes	Yes
	v3.3.0.0	No	No	No	No	Yes	Yes	Yes	Yes
	v3.4.0.0	No	No	No	No	No	Yes	Yes	Yes
	v3.5.0.0	No	No	No	No	No	No	Yes	Yes
	v3.6.0.0	No	No	No	No	No	No	No	Yes
	v3.7.0.0	No	No	No	No	No	No	No	No
	v3.8.0.0	No	No	No	No	No	No	No	No
	v3.8.1.0	No	No	No	No	No	No	No	No
	v3.9.0.0	No	No	No	No	No	No	No	No
	v3.10.0.0	No	No	No	No	No	No	No	No
	v3.10.1.0	No	No	No	No	No	No	No	No
	v3.11.0.0	No	No	No	No	No	No	No	No
	v3.12.0.0	No	No	No	No	No	No	No	No
	v3.13.0.0	No	No	No	No	No	No	No	No
	v4.0.0.0	No	No	No	No	No	No	No	No
	v4.1.0.0	No	No	No	No	No	No	No	No
	v4.2.0.0	No	No	No	No	No	No	No	No
	v4.3.0.0	No	No	No	No	No	No	No	No
	v4.4.0.0	No	No	No	No	No	No	No	No
	v4.5.0.0	No	No	No	No	No	No	No	No

		To							
		v3.8.0.0	v3.8.1.0	v3.9.0.0	v3.10.0.0	v3.10.1.0	v3.11.0.0	v3.12.0.0	v3.13.0.0
From	v1.0.0.0	No	No	No	No	No	No	No	No
	v1.1.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v1.2.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v1.3.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v1.4.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v2.0.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v2.1.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v2.3.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.0.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.1.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.2.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.3.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.4.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.5.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.6.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.7.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.8.0.0	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.8.1.0	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v3.9.0.0	No	No	No	Yes	Yes	Yes	Yes	Yes
	v3.10.0.0	No	No	No	No	Yes	Yes	Yes	Yes
	v3.10.1.0	No	No	No	No	No	Yes	Yes	Yes
	v3.11.0.0	No	No	No	No	No	No	Yes	Yes
	v3.12.0.0	No	No	No	No	No	No	No	Yes
	v3.13.0.0	No	No	No	No	No	No	No	No
	v4.0.0.0	No	No	No	No	No	No	No	No
	v4.1.0.0	No	No	No	No	No	No	No	No
	v4.2.0.0	No	No	No	No	No	No	No	No
	v4.3.0.0	No	No	No	No	No	No	No	No
	v4.4.0.0	No	No	No	No	No	No	No	No
	v4.5.0.0	No	No	No	No	No	No	No	No

		To							
		v4.0.0.0	v4.1.0.0	v4.2.0.0	v4.3.0.0	v4.4.0.0	v4.5.0.0		
From	v1.0.0.0	No	No	No	No	No	No		
	v1.1.0.0	No	No	No	No	No	No		
	v1.2.0.0	No	No	No	No	No	No		
	v1.3.0.0	No	No	No	No	No	No		
	v1.4.0.0	No	No	No	No	No	No		
	v2.0.0.0	No	No	No	No	No	No		
	v2.1.0.0	No	No	No	No	No	No		
	v2.3.0.0	No	No	No	No	No	No		
	v3.0.0.0	No	No	No	No	No	No		
	v3.1.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.2.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.3.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.4.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.5.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.6.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.7.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.8.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.8.1.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.9.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.10.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.10.1.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.11.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.12.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v3.13.0.0	Yes	Yes	Yes	Yes	Yes	Yes		
	v4.0.0.0	No	Yes	Yes	Yes	Yes	Yes		
	v4.1.0.0	No	No	Yes	Yes	Yes	Yes		
	v4.2.0.0	No	No	No	Yes	Yes	Yes		
	v4.3.0.0	No	No	No	No	Yes	Yes		
	v4.4.0.0	No	No	No	No	No	Yes		
	v4.5.0.0	No	No	No	No	No	No		

PS

		To							
		v1.00.0	v1.10.00	v1.20.00	v2.00.00	v3.00.00	v3.10.00	v3.20.00	v3.3.0.0
From	v1.00.0	No	No	No	No	No	No	No	No
	v1.10.00	No	No	No	No	No	No	No	No
	v1.20.00	No	No	No	No	No	No	No	No
	v2.00.00	No	No	No	No	No	No	No	No
	v3.00.00	No	No	No	No	No	No	No	No
	v3.10.00	No	No	No	No	No	No	Yes	Yes
	v3.20.00	No	No	No	No	No	No	No	Yes
	v3.3.0.0	No	No	No	No	No	No	No	No
	v3.4.0.0	No	No	No	No	No	No	No	No
	v3.5.0.0	No	No	No	No	No	No	No	No
	v3.6.0.0	No	No	No	No	No	No	No	No
	v3.7.0.0	No	No	No	No	No	No	No	No
	v3.8.0.0	No	No	No	No	No	No	No	No
	v3.9.0.0	No	No	No	No	No	No	No	No
	v3.10.0.0	No	No	No	No	No	No	No	No
	v3.11.0.0	No	No	No	No	No	No	No	No
	v3.12.0.0	No	No	No	No	No	No	No	No
	v3.12.1.0	No	No	No	No	No	No	No	No
	v3.13.0.0	No	No	No	No	No	No	No	No
	v4.0.0.0	No	No	No	No	No	No	No	No
	v4.1.0.0	No	No	No	No	No	No	No	No
	v4.2.0.0	No	No	No	No	No	No	No	No
	v4.3.0.0	No	No	No	No	No	No	No	No
	v4.4.0.0	No	No	No	No	No	No	No	No
	v4.5.0.0	No	No	No	No	No	No	No	No

		To							
		v3.4.0.0	v3.5.0.0	v3.6.0.0	v3.7.0.0	v3.8.0.0	v3.9.0.0	v3.10.0.0	v3.11.0.0
From	v1.00.0	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v1.10.00	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v1.20.00	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v2.00.00	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v3.00.00	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v3.10.00	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.20.00	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.3.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.4.0.0	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.5.0.0	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v3.6.0.0	No	No	No	Yes	Yes	Yes	Yes	Yes
	v3.7.0.0	No	No	No	No	Yes	Yes	Yes	Yes
	v3.8.0.0	No	No	No	No	No	Yes	Yes	Yes
	v3.9.0.0	No	No	No	No	No	No	Yes	Yes
	v3.10.0.0	No	No	No	No	No	No	No	Yes
	v3.11.0.0	No	No	No	No	No	No	No	No
	v3.12.0.0	No	No	No	No	No	No	No	No
	v3.12.1.0	No	No	No	No	No	No	No	No
	v3.13.0.0	No	No	No	No	No	No	No	No
	v4.0.0.0	No	No	No	No	No	No	No	No
	v4.1.0.0	No	No	No	No	No	No	No	No
	v4.2.0.0	No	No	No	No	No	No	No	No
	v4.3.0.0	No	No	No	No	No	No	No	No
	v4.4.0.0	No	No	No	No	No	No	No	No
	v4.5.0.0	No	No	No	No	No	No	No	No

		To							
		v3.12.0.0	v3.12.1.0	v3.13.0.0	v4.0.0.0	v4.1.0.0	v4.2.0.0	v4.3.0.0	v4.4.0.0
From	v1.00.0	Yes	Yes	Yes	No	No	No	No	No
	v1.10.00	Yes	Yes	Yes	No	No	No	No	No
	v1.20.00	Yes	Yes	Yes	No	No	No	No	No
	v2.00.00	Yes	Yes	Yes	No	No	No	No	No
	v3.00.00	Yes	Yes	Yes	No	No	No	No	No
	v3.10.00	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.20.00	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.3.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.4.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.5.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.6.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.7.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.8.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.9.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.10.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.11.0.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.12.0.0	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	v3.12.1.0	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	v3.13.0.0	No	No	No	Yes	Yes	Yes	Yes	Yes
	v4.0.0.0	No	No	No	No	Yes	Yes	Yes	Yes
	v4.1.0.0	No	No	No	No	No	Yes	Yes	Yes
	v4.2.0.0	No	No	No	No	No	No	Yes	Yes
	v4.3.0.0	No	No	No	No	No	No	No	Yes
	v4.4.0.0	No	No	No	No	No	No	No	No
	v4.5.0.0	No	No	No	No	No	No	No	No

		To							
		V4.5.0.0							
From	v1.00.0	No							
	v1.10.00	No							
	v1.20.00	No							
	v2.00.00	No							
	v3.00.00	No							
	v3.10.00	Yes							
	v3.20.00	Yes							
	v3.3.0.0	Yes							
	v3.4.0.0	Yes							
	v3.5.0.0	Yes							
	v3.6.0.0	Yes							
	v3.7.0.0	Yes							
	v3.8.0.0	Yes							
	v3.9.0.0	Yes							
	v3.10.0.0	Yes							
	v3.11.0.0	Yes							
	v3.12.0.0	Yes							
	v3.12.1.0	Yes							
	v3.13.0.0	Yes							
	v4.0.0.0	Yes							
	v4.1.0.0	Yes							
	v4.2.0.0	Yes							
	v4.3.0.0	Yes							
	v4.4.0.0	Yes							
	v4.5.0.0	No							